Volume 32, Number 1 Winter 2020

The Cut Flower QUARTERLY

Association of Specialty Cut Flower Growers Inc.

for growers of field and greenhouse specialty cuts

Inside this Issue

3 From the President

6 The Farmer and the Florist

10 Grower Profile

12 IPM Update

14 Installing a Remote Monitoring System

16 2019 NSCU Postharvest Report

20 2019 ASCFG Seed Trial Report

42 2019 ASCFG Perennial Trial Report

50 2019 Hardy Eucalyptus Trial Report

54 2020 New Varieties

58 Regional Reports

70 ASCFG News

74 From the Director

Cover photo courtesy of Emily Wren Photography and design by Jennie Love, Love 'n Fresh Flowers.

The Cut Flower QUARTERLY

is published by
The Association of Specialty
Cut Flower Growers, Inc.
MPO Box 268, Oberlin, OH 44074

Judy Marriott Laushman, editor.
Linda Twining, layout.
2020 ASCFG
ISSN 1068-8013

PUBLISHING ISSUE	SCHEDULE DEADLINE
Spring	March1
Summer	June 1
Fall	September 1
Winter	December 1

All articles, features, and display advertising must be received by these deadlines for publication. *The Cut Flower Quarterly* welcomes advertising. Contact ASCFG for advertising insertion order form.

Contact Judy Laushman

(440) 774-2887 or mail@ascfg.org
www.ascfg.org

Subscription is included with ASCFG membership. No part of this publication may be reproduced in any form without the written permission of the ASCFG. No endorsement of named or illustrated products or companies is intended, nor is criticism implied of products or companies not included.

Running Your Farm as a Business First

Jennie Love

Ah, winter, when many a farmer's dreams grow big and bold as the cold shrinks their manual labor load! What's that saying about idle hands? So much devilish temptation comes in the form of seed catalogs and online promo codes! But before you start planning all the new crops you're going to grow and reworking your field map a dozen times over to figure out how to squeeze it all in, you need to remember that your farm is a business first. That's to say, you should be spending less time drooling over dahlia pictures and more time honing some essential business skills that will allow you to SELL every last stem that you grow in 2020. No point in growing 'em if you can't sell 'em!

I could write an entire book (if I wasn't so busy farming) about growers being businessmen and businesswomen first and foremost, but I'll tackle three pieces to the puzzle here in this article to get you rolling with some key marketing projects yet this winter.

Online Shop

We are deep in the age of internet shopping, people. It pains me to say it, but if you've been resisting online sales, it's time to stop. I wish we could go back to the "bricks and mortar" days, but that ship has sailed. Customers want convenience. They want to be able to make purchases on their lunch break using their phone while standing in line for their latte. If you do not already have an online shop, winter is a great time to test out a few platforms and get one set up. If you're muttering to yourself that you don't have anything to sell online, then you're missing a critical piece of running your farm as a business.

In my online shop, I have listings for our Flower CSA, each of our on-farm workshops, gift certificates, and occasionally t-shirts or tote bags. If I were selling wholesale to florists, I would definitely have that in an online shop. While you could sell these items at your farmers' market stand or send out availability emails, those methods don't lead to impulse buys while waiting in line for coffee. Everyone (including you and me) loves instant gratification! A bona fide, professional-looking online shop provides just that!

If you're worried that getting an online shop up and running is going to cost you a pretty penny, don't. You can create one yourself, and generally they are really inexpensive—if not free—to launch. The way online store platforms make their money is by taking a small percentage of each sales, so it's in their best interest to help you set up a slick shop for free so they can get that little piece of the pie each time a customer clicks "purchase". I run my shop through Big Cartel. It's free for up to five items, which is a great level to get started. If you need to list more items as you grow your web store, you'll simply upgrade your account for $9.99/month, which is totally worth it.

There are lots of other online shop platforms such as Shopify, SquareSpace, FarmersWeb, and Wix. If you're really not web-savvy, you could work with Barn2Door.com to have them build you an entire online suite of promotional tools. Do a little homework and see which option feels easiest for you to use, and which one has templates that feel like they are "on brand" for your farm. You'll also want to check on each platform's percentage take of your sales. For me, I didn't concern myself with that piece of the puzzle too much. Most of the platforms take fairly similar percentages, and I was most concerned about having an online shop that fit my brand and felt easy to use on the back end. I'm typically in the backside of my online shop updating it about once a week, so usability was really important to me.

Email Marketing (a.k.a Newsletters)

Once you've got an online shop set up, it's time to learn the ropes of email marketing so you get visitors to your store. This may be old hat for some of you, but for others it can be intimidating. There are several tools available to make email marketing easier. Two biggies in this arena are Constant Contact and MailChimp, two websites that can help you collect email addresses and send out professional-looking marketing blasts. I'm a MailChimp girl myself. I found the look of their email templates fit my brand a bit better than Constant Contact. It's free to use MailChimp up to 2000 customers so that'll get you well on your way when you are first starting out.

First things first—you'll need to start collecting email addresses if you haven't already. When I first launched Love 'n Fresh Flowers, I was selling at farmers' markets. I would keep a clipboard with a pen on a string and a sign-up sheet right next to where customers waited for me to wrap their bouquets. With a big warm smile, I'd ask them to sign up for the newsletter while they waited for me to work. Some of those customers are still my best supporters after 12 years, even though I haven't done a farmers' market in a decade! You can also collect emails through your website with a pop-up or

a button that says "Sign Up for Our Newsletter". MailChimp makes that easy to design and link, seamlessly integrating into your address book on MailChimp.

There are two general formats for email marketing: newsletter and promotional. Every business, including yours, has to decide for itself what's the best mix of these two formats to get your target audience's attention. Here at Love 'n Fresh Flowers, I focus on a newsletter format about 8 out of 10 times, and use a purely promotional format only a few times a year. I chose to go this route because newsletters allow me to have a greater voice in my marketing efforts and help to communicate the big picture vision I have for my farm. I want customers to become friends who care about what we are doing and how we are doing it. Newsletters tend to come across as more authentic and less sales-y, so fewer people unsubscribe from our mailing list than the average. The downside to a newsletter approach to email marketing is that it takes a fair amount of time to write thoughtfully and regularly.

Occasionally a purely promotional blast is on point, or all that you have time for, particularly if you were sending out a weekly "specials" email to your florists or if you want to run a limited-time sale (think Cyber Monday). Just always bear in mind how quickly you'd unsubscribe from a mailing list if you kept getting blasted with purely promotional emails. No one likes junk mail!

Email marketing is proven to be the most effective marketing you can undertake. It surpasses platforms like Instagram and Facebook because you are cutting out the fickle middleman and directly connecting to customers who have signed up to hear from you. If you've been relying purely on social media for your promotions up to this point, spend some time this winter learning about the power of newsletters and getting set up to send them next season. Trust me, they sell like nothing else!!

Photography

For both your online shop and your marketing emails, a tantalizing picture is truly worth a thousand words. You will have your customer's attention for about 20 seconds (if you're lucky) in this modern era of constant digital marketing. Most online shoppers don't read more than a headline. They're scrolling fast and furiously and stop only when something catches their eye. A colorful, professional-quality image is the best way to get them to put on the scrolling brakes! Screeeeeech!!

You don't need a fancy camera. Most smart phones today have the capability to take a high-resolution image with a little know-how. Learning how to take a good picture is mostly about practice. And natural light!

Beyond just practicing a lot, here are the main photography pointers I can offer within the confines of my word count for this article (which I'm far surpassing at the moment): Never use your flash. Never take photos inside under artificial lights. Try to take pictures outside in a bright spot where the sun's glare is blocked but is not in deep shade. The colors of your flowers will read the truest in this "filtered" or "soft" light. Depending on the orientation of the building, you may be able to find a good filtered light spot just inside the door of your barn/garage/studio or under the overhang of a porch so weather won't be as much of an obstacle. When in doubt, take your photos as the evening sun just begins to set, known as the golden hour. Nearly all photos taken during the golden hour look amazing.

A gift that keeps on giving!
BEAUTIFULLY PACKAGED GIFT CERTIFICATES
Love 'n Fresh Flow
Lucky You! You've got a
Gift Certificate
Our GIFT CERTIFICATES make the perfect gift for the flower lover in your life! They never expire and the recipient gets the luxury of choosing the gift that makes them the happiest!
NOW THROUGH 12/18
Spend $50
Redeem for $60!
Gift Certificates are valid on EVERYTHING we offer!
Use high-resolution and well-lit photographs for your marketing emails.

If you are taking photos for products you are going to offer in your online shop (say, you're selling to florists and need to take photos of each type of flower on your fresh sheet that week), you'll do yourself a favor to set up a permanent photo spot with reliably good light and a plain backdrop (a white sheet hung up on the wall is an easy, simple backdrop).

Having a permanent photo spot makes taking good pictures a quick snap and also provides a consistent look for your web store.

Once you've taken photos, you'll want to do a little editing. This is a step a lot of people will try to skip for the sake of saving time, and it will show. Quality images need a little spit and polish, no matter how great a photographer you are. There are a lot of ways to edit your photos, but here are my top three tools:

- VSCO is an app you can download on to your phone that will make quick work of editing photos on the fly for your social media feeds. It's very easy to use and was free when I downloaded it.
- PicMonkey is both an app and a website. The website is my main go-to tool for editing photos to make slick marketing graphics like the one pictured here. I don't often use the app version, but it's handy to have in a pinch while on the go. I opted for getting all the bells and whistles to use for graphic design through a paid account, but there is a free version.
- Adobe Lightroom is software you can purchase and download to your computer to edit photos. This is what many professional photographers use to edit images. I use it to edit the RAW files that I capture on my "big girl" Canon Rebel T7 camera. The quality of the images from this process are unparalleled and have a major impact in marketing efforts for my farm. Both the DSLR camera and the purchase of Lightroom are an investment, but one definitely worth making.

Winter is a great time to focus on your business first. Prioritize building marketing infrastructure over farming infrastructure. We all get sucked into the farm part of things for the majority of the year. Now's the time to set yourself up for greater sales and profitability in 2020!

Jennie Love is owner of Love 'n Fresh Flowers.
Contact her at info@lovenfreshflowers.com

The Farmer and the Florist

What Are We Up to in Winter?

Ellen Frost and Laura Beth Resnick

Ellen

People always ask if things slow down for us in the winter, the answer is yes…and no. Our day-to-day work schedule is different in the winter because we are not doing as many weddings January through March. During the season (April to December), everything revolves around weddings. In the winter, the schedule is a little more flexible, not as stressful, more relaxed. The shop is open, we work on our weekly orders and subscriptions, and do a few corporate events each month. Easy peasy.

Of course, right smack dab in the middle of the "slow months" is the one of the biggest floral holidays of the year: Valentine's Day. Much of January and half of February is spent in preparation for, and execution of this holiday! We spend lots of time ordering vases and supplies, securing flowers, picking up flowers, promoting the holiday, taking, making and delivering orders, teaching couples floral design classes, and hosting Valentine's Day events.

The biggest change for us in the winter is the way we get flowers. During the season, growers deliver flowers to us a few times a week. Usually it's a small number of growers (6-8) who each bring a large quantity of flowers with each delivery. During the winter months, we still have some growers who deliver (thank goodness!) but many of these growers grow only one or two crops. For instance, Cut Flowers by Clear Ridge will deliver tulips, and Flowers by Bauers will deliver snapdragons, and Seaberry Farm will deliver flowering branches, and so on.

We're looking forward this year to adding Butterbee Farm to the list of our winter growers. This many growers with a limited number of crops means more staff time to coordinate deliveries and meet farmers.

Some of our main winter growers don't deliver. That means…ROAD TRIP! Each week from Thanksgiving to Mother's Day we drive, at least once a week, to Lititz, Pennsylvania, 81 miles away, to pick up flowers from Hendricks' Flower Shop. We also pick up flowers most weeks in the winter from Plantmasters, an hour's drive from Baltimore. We don't mind driving—it gives us a chance to listen to audiobooks and podcasts, and visit with the farmers.

Winter is also the time to visit with family and friends. Owning a small business that is busy during the holidays often means we don't spend time with our families and friends during the holidays. January is our time to catch up and spend quality time with people we love. Not nearly as exciting, but still critical in the winter is doctors' appointments, dentist appointments, and other errands we don't make time for when we're busier.

Laura Beth

Before we had winter production, I enjoyed down time from December to March. I often worked as a nanny in the winter to make a little extra cash, went to conferences, and spent many cozy days crop planning. I tried to stay fit in the winter too, so that in spring I felt ready to get back in the field.

But those lazy winter days are behind me! A year ago, we started winter production on the farm. We have two heated tunnels—one is 96 x 30, the other is 126 x 32. I'm still adjusting to my new winter schedule, which feels busy and sometimes extremely challenging in those high value spaces. In addition to routine farm chores like planting and weeding, the heated tunnels require scouting for pests, managing botrytis, and snow removal.

My team is mostly off of work in the winter, so I do most of this myself. I have my right arm on the farm, the amazing Liz, scheduled to help me with this workload starting in February. We hope to start deliveries to our florists in mid February (crossing my fingers for Valentine's flowers) with ranunculus, anemone, dusty miller, freesia, and poppies.

My winter extracurriculars have increased in recent years. I speak at and attend conferences, consult with new farmers (shoot me an email for more information!), visit farmer friends near and far, and try to catch up on business and farming books I've missed. I'm adding a new activity to the docket this winter too: working as your Secretary of the ASCFG!

Despite all of these exciting demands on my time, I have some non-negotiable fun in the winter. I make lots of time to see friends and my parents, play in a local community orchestra (we're doing the Beauty and the Beast musical this winter!), go to the gym, and do some arts and crafts. I treat myself to coffee and my favorite coffeeshops, try new recipes, go to the farmers' market, watch *How to Get Away with Murder*… you know, the usual winter stuff!

What are we collaborating on this winter?

Laura Beth

This winter, I asked Ellen to have two meetings with me—one in the late fall to get her fresh feedback on our season, and another in deep winter to catch up more generally. I try to come to these meetings with a clear agenda, and let her know ahead of time so that she is mentally prepared for whatever we talk about. Some topics we cover include new varieties, our short- and long-term plan for production, new classes we can teach together, and always some nerding out about business!

Ellen

This winter, while I'm traveling, Laura Beth is sharing Liz, one of her employees, with us. It's perfect timing since Laura Beth has less work for Liz in the winter, and we need a little extra help since two of our employees just had babies recently. Liz is already familiar with LoCoFlo, she knows our current staff, she knows how to drive the van, and is a great fit!

What are we reading/watching/listening to this winter?

Laura Beth

I finally got my hands on *The Purple Cow* by Seth Godin. I plan to re-read *The Greenhouse and Hoophouse Grower's Handbook* by Andrew Mefferd now that I have one season of winter growing under my belt. I never read *The Lean Farm* by Ben Hartman, so I'll definitely look that one up. I'll catch up on *Growing for Market* articles, too—I enjoy the non-flower related pieces as much as the flower focused. I'd like to find some good biographies of women in leadership roles, shoot me any suggestions please! I want to watch the Nashville ASCFG videos. And, I'm taking an online class on business accounting at the local community college. As I'm writing this, I realize I'd better get cracking, this is a long list!

Ellen

The winter is when I try to read, for the first time, all of the books on the LoCoFlo Bookclub list for the coming year. This year we're reading: *Overstory* by Richard Powers, *Ecology of a Cracker Childhood* by Janisse Ray, *We are the Weather* by Jonathan Safran Foer, *Silent Spring* by Rachel Carson, *Black Faces, White Spaces* by Carolyn Finney, *The Brother Gardeners* by Andrea Wulf, and *Where the Crawdads Sing* by Delia Owens. I'll also catch up on the ASCFG conference videos which I usually watch while walking on the treadmill at home. Finally, I'm excited to check out some new design books including Amy Merrick's *On Flowers: Lessons from an Accidental Florist*. Days when I can read and drink coffee in the sunroom with nowhere to be are some of my favorite winter days for sure.

Ellen Frost is owner of Local Color Flowers.
Contact her at ellen@locoflo.com

Laura Beth Resnick is owner of Butterbee Farm.
Contact her at butterbeefarm@gmail.com

LEO BERBEE BULB COMPANY, INC.
QUALITY PRODUCT AND EXCELLENT CUSTOMER SERVICE

ONE STOP SHOP FOR BULBS, PERENNIALS & MORE

- Family Owned & Operated
- No Minimums
- Small Packs Available
- Unique Varieties
- Online Ordering

MENTION THIS AD- 10% OFF NEW ORDERS!

CONTACT US

Sales@berbeeus.com
800-642-BULBS
Order Online Today! berbeeus.com

Kraft Paper Sleeves

FROM A-ROO COMPANY

NEW SIZE, NEW DESIGN

Introducing our new kraft paper sleeve! A lot of thought went into the new addition of this industry staple. Measuring at a 20" top x 13" length x 5.5" bottom, the shorter height keeps the sleeve out of water and allows it to stay dry while sitting in a bucket. A low-cut front and a higher back helps create a flattering frame, while still allowing the blooms to stay protected. Simple and understated, the organic look of this kraft paper sleeve will showcase the beauty of your fresh cut flowers. Order online through our Web Shoppe or contact your A-ROO Company Sales Representative!

SHOP.A-ROO.COM • • @AROOCOMPANY

Recyclable • Biodegradable • Made from a Renewable Resource

Field of Blooms

Jodi Helmer

Tending to a flower farm comes naturally for a nurse turned grower

Rosie Standish loves hearing the reaction when she first opens the barn doors for the farm to vase events she hosts at Field of Blooms, a cut flower farm in Mantua, Ohio, to reveal tables filled with a huge selection of cut flowers.

"It's always fun to hear the big gasp," Standish recalls. "The next thing people ask is, 'You grow all of this?' They have no idea how many different kinds of flowers there are or that they are all growing so close to their homes."

Standish hosts several field to vase events every year. The hands-on workshops are designed to introduce attendees to the farm and encourage them to express their creativity by creating one-of-a-kind bouquets.

"It's an opportunity to touch and smell different flowers and experiment with different ways of putting them together, which you can't do when you buy flowers at the grocery store," she says.

Standish has learned that the arrangements often match the personalities of those making them. Those who are quiet and introverted tend to make smaller, more demure bouquets while those who are outspoken and boisterous tend to create larger arrangements and use bolder colors.

Watching people respond to her flowers is one of the things Standish likes best about her work.

"Flowers bring people such joy," she says. "I almost never have someone leave without a smile on their face."

Rosie Standish

From Garden to Farm

Standish was a longtime gardener. In 2011, after moving to an 1880s farmhouse on 15 acres southeast of Cleveland, Standish started expanding her gardens, adding an ever-increasing selection of annual and perennial cut flowers. The "field of blooms" gave Standish an idea.

"My husband [John] and I like to dig in the dirt and we continued to expand our garden bed." she recalls. "I remember thinking, 'I have so many flowers; what if I set up a little stand out front?'"

The farmhouse was set on a well-traveled road and served as a landmark in the Ohio community so it didn't take long for passersby to notice a table filled with cut flowers and a sign that said, "Fresh Flowers for Sale."

Standish started selling bouquets as fast as she could set them out. Before long, she realized that she wasn't growing enough flowers to meet the demand.

"I started growing more and learning more [about flower farming] and realized it was its own little industry," Standish says.

In 2016, Standish left her job as a nurse-midwife to pursue flower farming full time. Field of Blooms has expanded from a few gardens to one and a half acres of annual and perennial cut flowers, including eucalyptus, ageratum, celosia, peony, bleeding heart, ranunculus, white lilac, sweet pea, veronica, garden phlox, and dianthus. In Ohio, Standish is able to grow cut flowers from late May through October. She is in the process of constructing a new hoophouse (thanks to funding from the USDA High Tunnel Initiative) to extend her growing season.

Like most growers, Standish sells flowers to florists, at farmers markets, via a subscription model, and designs arrangements for weddings and other special events. She still maintains the roadside flower stand that kick-started her business.

Standish loves helping people select flowers that make them smile; sometimes that means selling tried-and-true blooms like sunflowers, and dahlias—one of Standish's favorites—but she also delights in introducing people to new discoveries.

"It's great to bring things like godetia and safflower to the markets and have people do a double take and ask, 'What are those?'" she says.

The Value of On-farm Learning

Standish also appreciates opportunities to bring people to the farm to show them how flowers are grown. For many, it's their first time on a flower farm and their first time learning that most of the cut flowers sold in the United States are imported from other countries. Markers at the end of each row list the varieties of flowers, ensuring that visitors get to learn something while taking in the beautiful surroundings.

During seasonal open houses, Standish sets up stations around the farm. The staff takes turns explaining different aspects of flower farming, from the use of plastic row covers and pest management to harvesting and caring for cut flowers. The on-farm events are another way Standish educates her community about flower farming and encourages customers to purchase local blooms.

In the future, Standish hopes to hire someone to help with sales and marketing to allow her more time to focus on growing flowers; she would also like to share her passion with the next generation of flower farmers, providing hands-on experiences that could help them to succeed.

"In order for me to be successful and have the product that I want to have, I need to hire help." she says. "I'd love to see more people in our area pursuing flower farming; competition is always healthy in commerce."

Jodi Helmer is a freelance writer in North Carolina.
Contact her at jodi@jodihelmer.com

Biological Control Suggested for Asclepias

Stanton Gill

As the demand for native plants continues to increase, and cut flower growers incorporate natives like *Asclepias* species into their crop lists, we thought this story would be interesting to ASCFG members.

We recently worked with a perennial nursery that produces several species and cultivars of *Asclepia*s, including *A. tuberosa* (butterfly milkweed), *A. incarnata* (swamp milkweed), and *A. curassavica* (Mexican milkweed). It was having trouble with common summer and late summer pest on its asclepias plants.

One of the most common of these is oleander aphid, *Aphis nerii*. It is bright yellow with black legs and black cornicles (small projections near the rear end). I find it rather attractive but the nursery's customers did not want this pest on their plants, and it was impeding sales. In low numbers you can easily rub these off with your fingers—if you don't mind squishing bugs barehanded.

Ladybug larva feeding on oleander aphid.

Oleander aphids crowd a stem of *Asclepias incarnata*.

However, squishing by hand is not too practical if you have a lot of plants. The nursery did not want to use pesticides since many of their customers grow *Asclepias* to help feed and increase the population of monarch butterflies, which feed on milkweed foliage. Aphids can weaken plants as they feed, possibly decreasing the nutritional value of the leaves for the monarch caterpillars. They were interested in finding an effective biological control, and wanted something that would quickly take out an aphid population just before the plants were shipped out.

I knew I had to select a psychotic killer insect for this job and I knew just the species to use. Working closely with this operation, we decided that green lacewings were probably one of the more cost-effective methods of controlling aphids, so we purchased both eggs and larvae. The result was dramatic and very fast. The lacewing larvae are voracious killers of aphids. They cleaned up plants in less than a week. Stems were coated with oleander aphids when we started this adventure, and within a week we could not find living oleander aphids.

Another method is to use the parasitic midge called *Aphidoletes*. The aphid midge, *Aphidoletes aphidimyza*, is a cecidomyiid fly whose larvae are effective predators of aphids. The adult midge lays eggs near aphid colonies. The larvae, which look like maggots, are tiny, growing through three instars from minute to 2-3 mm. Depending on their food source, they are bright orange to red, and their bodies narrow toward the head. The slug-like larvae grab aphids by the leg and insert their mouthparts in the body, putting in a fluid that paralyzes the aphid so it cannot escape. They then suck the aphid dry. *A. aphidimyza* attacks over 60 species of aphids. Each female may live for one to two weeks and deposit, singly or in clusters, about 70 upright, orange eggs on leaves among aphids. The eggs hatch in two to four days.

The other interesting item we received in December was a *Phlox paniculata* with a soft scale insect coating the plant. We identified this as brown soft scale, *Coccus hesperidium.* Adult female brown soft scales are pale yellowish green to yellowish brown, often mottled with brown spots. Older females are brown. The body is usually oval in outline, 2.5 to 4 millimeters in length, and slightly convex in profile. The shape can vary slightly according to position on the host plant.

A predatory midge, *Aphidoletes* (circled), and a lacewing larva enjoy lunch together.

This scale feeds on a wide range of plant material but is really a tropical insect. It should not overwinter outdoors in northern climates. If you are in the southern part of North America it will overwinter outdoors. In northern climates, many nurseries and some cut flower growers will overwinter plants in protective structures covered with poly, where this pest may be able to survive.

The scale is predominantly female with very few males. Females will mate but they can also reproduce without mating, so a population can really take off when the weather warms.

Exposing the foliage to temperatures in the twenties or below should kill the scale. Pruning and disposing of all infested foliage before it starts producing crawlers that will rapidly spread to other plants may cut down on populations. If you find you have an infestation in the spring or summer on a large number of plants I would suggest trying the new systemic insecticide from Bayer called Altus. In trials I conducted in the summer of 2019 it was very effective in controlling this scale.

Brown soft scale on phlox.

Brown soft scale damage to phlox.

Stanton Gill is an Extension Specialist in IPM and entomology, University of Maryland, CMREC, and Professor with Montgomery College, Germantown.
Contact him at sgill@umd.edu

Questions to Ask Before Installing a Remote Monitoring System

The sooner you can detect extreme temperature fluctuations, rising humidity, or equipment failure in your greenhouse, the more inventory you can save.

By Rob Fusco

No matter the size of your greenhouse operation, keeping your plants alive and healthy requires the best possible growing environment. This means greenhouse managers and personnel must frequently monitor the status of environmental conditions and equipment.

Integrating a remote monitoring system into your greenhouse can save you time, money, and anxiety. Monitoring systems that use cloud-based technology let you see real-time status of all monitored conditions and receive alerts right on your mobile device.

Here are answers to a few questions to ask before installing a cloud-based monitoring system.

What Kind of Monitoring System and Sensors Should I Use for My Operation?

A reputable manufacturer will have a well-trained support team that can assess your needs, even without a site visit, to determine which products are best for your application. If you feel you need them to check out your greenhouse operation, many companies can set up a video conference or FaceTime chat to substitute for being on site.

You will want to provide details about the scope and purpose of your greenhouse operation. Important factors to discuss include:

- Skeletal structure of the greenhouse (metal, plastic, wood, etc.) and the covering material (glass or plastic)
- Floor space, square footage, and height of each of your greenhouses
- Number of greenhouse structures in your operation
- Outdoor climate to determine if you rely more on heating or air conditioning and the level of humidity control needed
- Space dedicated to specific plants and the microclimates needed for each
- Types of lighting, ventilation, and irrigation systems
- Level of technological automation versus manual operation in place

Cloud-based monitoring systems have data-logging capabilities and store limitless amounts of information that you can view from any internet-connected device via a website or app. Photo: Sensaphone

The monitoring system representative will then determine the type of system that would best serve your operation, the number of base units you will need, and the types of sensors required.

Are Sensors Included With a Monitoring System?

In most cases, sensors are sold separately. The sensors you select depend on the conditions you want to monitor and how many you can connect to your base unit. Certainly, temperature is critical, but there are many other factors to deal with as well, such as humidity, CO_2, soil moisture, water pH, power and equipment failure, ventilation, and physical security.

For example, humidity has a direct impact on the photosynthesis and transpiration of plants. High humidity can cause disease and promote the growth mold, algae, and mildew. Sensors can detect changes in humidity levels.

Because plants need CO2 to thrive, it's a good idea to include a CO2 sensor that will signal the monitoring device when readings go out of the preset range. There are even sensors that you can place in the soil to measure moisture content to help prevent over- or under-watering, budget water usage costs, promote growth, and increase crop yield and quality.

Ventilation systems not only help control temperature, they also provide fresh air that is critical to plant health. Automated systems include features like vented roofs, side vents, and forced fans. Sensors placed on all these systems will send personnel an alert if they stop running or operate outside of preset parameters.

Do Monitoring Systems Only Work With the Manufacturer's Sensors?

Not necessarily. For example, certain monitoring units can connect with most 4-20mA sensors and transmitters regardless of the brand. When selecting sensors, you might have a choice between ones designed by the manufacturer to work specifically with the monitoring system or universal components made by a third party. If the components aren't made by the system manufacturer, you'll want to find out if they have been tested with the monitor you are choosing and if you need to work with another vendor to purchase the parts.

Is There a Monthly Fee to Access all th Functionality of a Monitoring Device?

Many web- or cloud-based systems provide free functionality with some limitations. You might have to purchase a premium subscription to unlock features such as text messaging, phone call alerts, and unlimited datalogging access.

Can One System Monitor Several Sensor Inputs Around the Clock?

Once the monitoring system is installed and programmed, it will constantly read the information from the sensors 24/7. Cloud-based systems have datalogging capabilities and store limitless amounts of information that you can view from any internet-connected device via a web- site or app.

If the system detects any sensor readings outside of the preset range, it will send an alarm to all designated personnel. The number of sensors a base unit can monitor varies. Make sure to evaluate your needs and to select one that can accommodate your present situation and future growth.

When a monitoring system identifies a change in status, it immediately sends alerts to people on your contact list. If you don't want all your personnel to receive notifications at the same time, some devices can be programmed to send alerts in a tiered fashion or on a schedule.

Do Monitoring Systems Have a Back-up Power System?

The safest choice is a cloud-based system that comes with a built-in battery backup that will last for hours in the event of a power failure. Cloud-based units constantly communicate a signal to the cloud to validate its online status. If the communication link is interrupted — for example, by a power outage or an employee accidentally switching off the unit — the system generates an alarm indicating that the internet connection is lost or that there is a cellular communications problem. Users are alerted about the disruption through phone, text, or email. All data collected during this time will be stored in the device and will be uploaded to the cloud when the internet connection is restored.

What are the Costs Associated With Repairs to the System?

Purchase your system from a reputable manufacturer that provides a warranty and offers full repair services in the event the product stops working as it should. Also, research to make sure their tech support team is knowledgeable and willing to walk you through any questions you have about your monitoring system. Often, support specialists can diagnose and correct unit setup and programming issues over the phone.

Installing a monitoring system is an easy and affordable way to make sure your equipment is running properly, and environmental conditions are where they need to be to keep your plants healthy.

Rob Fusco (rfusco@sensaphone.com)
is Director of Business Development with Sensaphone, a developer and manufacturer of remote monitoring and alerting systems.

Reprinted with permission from Greenhouse Grower, *November 2019.*

2019 North Carolina State Postharvest Report

Nathan J. Jahnke and John M. Dole
Department of Horticultural Science
North Carolina State University

This project was supported by the Association of Specialty Cut Flower Growers Research Foundation, and generous suppliers. The authors would like to thank Ben Bergmann, Ingram McCall, and Sydney Ruppert for assisting with growing and harvesting all the varieties.

This year we tested 19 varieties in our postharvest trial. While many varieties did not show a statistically significant benefit from the hydrator and holding solution treatments, we looked back over years of data and provided you with additional information about what treatments seem to work best for a particular species.

Postharvest Handling Details

Field-grown flowers and foliage were harvested into tap water at their industry standard stage of development. Stems were then sorted into four equal groups and placed in the treatments below for the specified time and then placed into vases of deionized water.

- Hydrator only (4 hours)
- Holding preservative only (2 days)
- Hydrator for 4 hours followed by holding preservative for 2 days
- Tap water only (as a control)

Floralife Hydraflor 100 was used as the hydrator at 1.0 ounce per gallon, and Floralife Professional was used as the holding preservative at 1.3 ounces per gallon (the rates listed on the packaging). After treatment, stems were placed in tap water and held at 68 ± 2F under approximately 200 foot-candles of light for 12 hours per day. The vase life for each stem was recorded. Flowers were typically terminated when 50% of the flower(s)/florets on the stem were brown, wilted, drooped over, etc.

Some of you may be asking, "What are hydrating and holding solutions?" Both are types of preservatives. Floral preservatives can be categorized as either hydrating, holding, or vase solutions.

Hydrating solutions are meant to be applied right after harvest, prior to a holding solution, to facilitate water uptake and do not contain a carbohydrate source. Hydrating solutions are usually used for a short time, such as 4 hours.

Holding solutions contain a carbohydrate source (sugar) to encourage bud opening and/or flower longevity, and are applied for several hours up to approximately 2 days either by growers or wholesalers before they get to the final consumer.

Vase solutions are generally applied by the consumer, commonly in those little packets, and contain a higher concentration of carbohydrates than a holding solution. While we do not test the use of vase solutions in these studies, it would be safe to assume that flowers that perform better with a holding solution would likely last longer for your customers with a vase solution.

Our testing methods tend to produce the maximum vase life, which tells you the potential vase life of each species. We cut and process the stems rapidly, put one stem per jar, and use a postharvest evaluation temperature that is a bit cooler than a typical home in a southern summer. These procedures were set up to provide a consistent environment so that anyone else should be able to repeat our work and get similar results. These factors combined typically add about 1 to 3 days to the vase life of some species compared to what a grower would usually get. It is also important to note that these results do not replace in-house testing as there are many on-farm factors that affect vase life.

***Campanula* 'Campana Deep Blue Improved'**

We loved the faint grape fragrance of the bell-shaped flowers. Vase life was highest for flowers treated with tap water (16 days). Floral preservatives did not statistically influence vase life. Here at NC State we have trialed 6 different varieties and 'Campana Deep Blue Improved' seems to follow the trend that holding and hydrator solutions had a minimal benefit, but may improve color of buds opening up.

***Celosia* 'Sunday Bright Pink' and 'Sunday Orange Improved'**

Celosia are a summer staple and these varieties provide a splash of bright color. 'Sunday Bright Pink' had a vase life between 10 and 11 days regardless of treatment. Treatments did not statistically influence vase life of 'Sunday Orange Improved' compared to the tap water at 9.5 days. However, vase life was highest

'Sunday Orange Improved'

for stems treated with both hydrator and holding solution (11 days). After trialing over 10 varieties of celosia, it is fairly clear to us that they have rarely needed a hydration or holding solution. Some stems may root in the vase, thereby increasing the vase life. The best way to maximize vase life of this species is to harvest it when around half of the flowers on the plume open.

***Digitalis* (foxglove) Camelot Mix**

We loved this mix of creamy whites and pinks. Back in 2004 we trialed both Camelot Lavender and Rose, which had a 1 day longer vase life with a holding solution. Vase life of Camelot Mix was consistently 11 days, regardless of treatment. There was a loss of pigment in florets that opened after harvest in darker colored flowers. Using a holding solution and providing customers with flower food packets may help preserve flower pigmentation.

Photo Janis Harris

***Eustoma* (lisianthus) 'Arena Purple' and 'Arena White'**

Vase life of 'Arena Purple' was improved from 10 days to 14 days with a holding solution. This is echoed by numerous other varieties we have trialed in the past. 'Arena White' had a vase life of 11 days and there was no benefit to using a hydrator or holding solution, which matched results we obtained when 'Arena White' was in the trial years ago. Most varieties benefit from use of a holding solution, especially those with darker flowers where the holding solution may help buds develop good colors. Be sure to do on-farm testing of lisianthus.

***Tagetes* (marigold)**

Coco Series—Deep Orange, Gold, and Yellow

'Coco Deep Orange' was the favorite marigold this year, and vase life was improved from 16 days to 17 days with the use of both a hydrator and holding solution. 'Coco Gold' and 'Coco Yellow' were not influenced by the treatments, and lasted 20 days and 25 days, respectively.

'Garuda Yellow' and 'Oriental Yellow'

'Garuda Yellow' lasted 20 days in the vase without treatment and 'Oriental Yellow' lasted 25 days. While these varieties did not respond to a holding solution, 11 out of the 12 varieties tested in the past have had a higher vase life when treated with a holding solution.

***Pennisetum* (fountain grass) 'Puppy Love'**
Surprisingly, we have never had Pennisetum in the trial before now. The fluffy inflorescence adds a great texture to arrangements. Plants produced all summer long, and were very productive—we couldn't cut it enough. Stems treated with hydrator, holding solution or the combination had a vase life of 1 to 2 days longer than stems treated with tap water (17 days).

***Antirrhinum* (snapdragon)**

'Monaco Orange'
Vase life was slightly improved from 8.7 to 10 days by using a hydration solution. We recommend testing a holding solution on your own farm because in the past the last 10 snapdragon varieties all had a higher vase life when a holding solution was used. This year we had a terrible time with caterpillars feasting on the snapdragon florets after harvest, which may have reduced the vase life.

'Potomac Royal Improved' and 'Potomac White Improved'
The use of a holding solution improved the vase life of 'Potomac Royal Improved' by 1 day compared to stems treated with tap water (10.5 days). 'Potomac White' had a vase life around 14 days regardless of treatment. These two colors together make great additions to a trendy burgundy wedding bouquet.

'ProCut Gold Lite DMR'

Photo Valerie Schirmer

'Puppy Love'

***Helianthus* (sunflower)**
Sunflowers have been all over the place in terms of responding to treatments. These varieties were no exception. More often than not, the use of a holding solution has improved vase life of sunflowers by 1 to 3 days.

'Sunrich Gold Summer'
Vase life was not statistically different in response to treatments, but stems treated with a hydrator, holding solution or the combination had a vase life of 12 days compared to 11 days.

Sunflower 'ProCut Gold Lite DMR'
Similarly, stems treated with preservatives had a slightly longer vase life (10 days) compared to stems treated with tap water (9 days).

Sunflower 'ProCut Horizon'
Preservative-treated stems lasted one day longer (12 days) compared to 11 days when treated with tap water.

If you are interested in seeing more results from previous trials, check out back issues of *The Cut Flower Quarterly* or check NC State's Cut Flower Extension web site https://cutflowers.ces.ncsu.edu/ where you can look up production and postharvest trial results by year, species, or cultivar.

CRÈME FRAICHE®
Deutzia
Variegated foliage. White flowers. Deer-resistant

WINECRAFT BLACK®
Cotinus
Saturated purple-black foliage with showy, red smoke-like blooms

WINECRAFT GOLD®
Cotinus
Orange-red new growth transitions to chartreuse green

SHINY DANCER®
Viburnum
Dark green, heavily textured, semi-evergreen foliage

PEARL GLAM®
Callicarpa
Purple foliage, white spring flowers, purple berries in fall

SISTER REDHEAD™
Cytisus
Showy broom, dramatic red color

KODIAK® Black
Diervilla
Tough, easy-growing, burgundy-black foliage

KODIAK® Orange
Diervilla
Glowing orange foliage, yellow early-summer flowers

BLACK CAT®
Salix
Extra-large black catkins on long branches

SUMMER WINE® Black
Physocarpus
Striking, dark purple-black foliage

GINGER WINE™
Physocarpus
Spring foliage emerges a sunny orange and matures to sparkling burgundy

GOLDEN TICKET®
Ligustrum
Non-invasive privet; glossy foliage that emerges bright yellow, ages to chartreuse

FOCUS ON FOLIAGE

Our lusciously colorful, beautifully clean foliage will fill your buckets and bouquets with style. These varieties provide the reliable supply of filler stems you need but require minimal space and labor. Go ahead, cut all you want: they'll grow right back.

Call us at 1-800-633-8859 to talk to an account manager and request a copy of our catalog. Ask about our large Quick Turn™ liners for a faster crop, at a cost of just pennies per stem.

Spring Meadow.

2019 ASCFG Seed Trial Report

John Dole,
Nathan Jahnke,
Ben Bergmann,
and Judy Laushman

Opening the box of Trial seed each year is like opening presents at the holidays—you're never sure what you're going to get, but you know there will be something wonderful inside.

In 2019 we received 30 cultivars from six companies, and many were terrific performers. Snapdragons appear to be the stars of the Trial; all three cultivars performed very well—so well, in fact, that they have been added to our list for ASCFG Cut Flowers of the Year consideration. This is a bit of a surprise, since snaps can be difficult for some growers to grow well, especially where summers are hot, springs are short, and winters are cold. In those areas, spring plantings typically do not produce much before the heat sets in, but the winters are too cold for overwintering plants. What is clear is that growers are getting better at producing snaps outdoors or in unheated tunnels, and that seed companies are breeding cultivars that are not only attractive but durable enough for field and open tunnel production.

The highest-rated snapdragon was **'Potomac Royal Improved'** from Ball/PanAmerican Seed, with 30-inch long, thick stems (at least one Trialer got 44-inch stems) and about 4½ stems per plant. We received several superlatives about this cultivar: "BEST snapdragon I've ever grown, and we grow a lot of snapdragons.", "This is a great flower!", and "This snapdragon was one of our favorite things we grew for the Trial". The wonderful purple-rose color certainly helped. Trialers also noted that 'Potomac Royal Improved', and the other two cultivars had an excellent return crop after the first stems were harvested.

'Monaco Orange', from Ball PanAmerican Seed, stood out for its vibrant orangey pink color as well as its productivity (4.1 stems/plant) and stem length, which ranged from 12 to 36 inches. One Trialer stated "This was another favorite of ours, fantastic for a field-grown snapdragon, stems were strong and flower heads were large and full".

'Potomac White Improved', also from Ball/PanAmerican Seed, rounds out the trio with 4.2 stems/plant and 18 to 36-inch long stems. You can't beat the straightforward comments from one Trialer: "Love! Tall and really white!"

Ornamental cabbage and kale often are difficult to evaluate in this program for the same reasons as the snapdragons. However, **'Condor Red'**, **'Condor White'**, and **'Flare Rose'** all performed well for a number of our Trialers. 'Condor Red' and 'Flare Rose' were the favorites, with one Trialer writing "This is the perfect specimen of flowering cabbage." for 'Condor Red'. However, 'Condor White' had its fans as well: "Perfect cupcake-looking heads... best ornamental cabbage I've grown." Stem length for all three averaged 29-30 inches, with individual Trialers getting 12 to 54-inch stems.

Rounding out the list of cool season cuts, we had a stellar stock in the trials: **'Katz Hi Double White'** from PanAmerican Seed. As with snaps and ornamental cabbage and kale, stock doesn't do well in many climates. However, this stock scored well and produced one stem/plant that averaged 24 inches, although two growers got 36 inches. One Trialer commented "My #1 favourite in the trial."

New marigolds continue to dominate the Trial. This program had eight cultivars, of which the Coco series from Sakata performed the best. All three **Coco** cultivars**, Gold, Orange, and Yellow**, had the longest stems, averaging 23 to 29 inches, with individual responses ranging from 12 to 54 inches. Plants were productive, averaging 11 to 13 stems per plant, with responses ranging from 1 to 30 stems/plant. The large flowers and great colors sealed the deal. Several folks also noted that the flowers dried well. **'Oriental Yellow'** from AmeriSeed was not far behind in the ratings, noted for producing lots of long stems topped with large, bright yellow flowers.

What is clear is that growers are getting better at producing snapdragons outdoors or in unheated tunnels, and that seed companies are breeding cultivars that are not only attractive but durable enough for field and open tunnel production.

Photo Tanis Clifton

Photo Jamie Sammons

Considering the number of marigold cultivars in the Trials over the years, it is getting more difficult to produce a cultivar that stands out. It is clear from the comments that some growers are harvesting stems with a single flower, while others are harvesting sprays with multiple flowers per stem. One Trialer said it best in comments regarding **'Bali Gold'** from AmeriSeed: "Nice, thick, sturdy central stem that opens to a VERY usable tight spray, one stem, bouquet complete, definitely growing this again!" A similar comment was received for **'Bindi Orange'** from AmeriSeed: "SINGLE STEM WITH AN AMAZING CLUSTER, definitely no side shoots, but the cluster was great, one stem, bouquet done!" It might be time to start producing cultivars specifically bred for single flower production or for spray production as with chrysanthemums and a few other species.

Photo Tanis Clifton

There were only two lisianthus in the Trial, both from the **Arena series—Purple** and **White**, from American Takii. As more and more lisianthus varieties are made available, the bar gets ever higher. Both varieties did well, producing about 4 stems per plant that averaged about 18 inches long, good for outdoor-grown lisianthus. A couple of top-notch growers reported stems up to 30 inches long for both cultivars. For those not growing lisianthus, one of the draws of this flower is the long vase life, averaging around 12 days for both cultivars.

Celosias are another mainstay crop for our industry and as such they garner much attention. There were three cultivars in the Trial, all from the **Sunday Series** from PanAmerican Seed. All three were productive, producing about 8 stems per plant that ranged from 6 to 24 inches long, averaging about 16 inches. The top-ranked cultivar was '**Orange Improved'**, due to its burnt orange color, and taller stems. The original 'Sunday Orange' was the ASCFG Cut Flower of the Year for 2015, so it is not surprising that 'Improved' scored well in the trials. According to one Trialer "This was one of my favorite Trial varieties". **'Bright Pink'** and **'Purple'** stood out for their colors as well, both of which are uncommon in celosia.

One of the long-term trends in floriculture has been the annualization of biennials and perennials, the process by which breeders select cultivars that flower in the first year from seed or cuttings. This is done by selecting plants that grow fast, have a short juvenility period, or bypass one or more of the flowering control mechanisms such as cold or photoperiod. Campanulas, stock, and delphiniums are three notable cut flowers that have undergone the treatment. This year's Trial include four species that have been annualized over the years. **'Camelot'** digitalis from Syngenta/Goldsmith produced a wonderful array of colors on stems that ranged from 12 to 24 inches long. One Trialer said it was "Nice to have a second succession of foxglove from spring-seeded plants, overwintered plants bloomed first and as they grew tired here came this next succession, continued to bloom well into the summer months." Another stated "Can't go wrong with any foxglove especially one that flowers first year!"

This was the first time we had lavender in the Seed Trial. Both **'Blue Scent Early'** and **'White Scent Early'**, from Syngenta/Goldsmith were productive, with 14-15 stems per plant, and up to 34 from one Trialer. Not surprisingly, the stems were short but lavender has such a strong customer following that growers found a way to use the short stems. One Trialer noted that 'Blue Scent Early' was "One of my top five favs in the trials." First-year flowering is particularly important for lavender as it does not overwinter well in areas with wet winters, even in mild climates.

Rounding out the list of annualized perennials/biennials were delphinium and campanula. Both do best in cool climates, in greenhouses, or in areas with long springs. Growers loved the deep purple blue of campanula **'Campana Deep Blue Improved'** (PanAmerican), and the colors of the delphinium **'Delphine Dark Blue White Bee'** and **'Rose White Bee'** (Syngenta/Goldsmith).

Not surprisingly, we had sunflowers in the Trial again this year. All three were excellent, noted for their uniformity, strong stems, and long vase life, averaging 10 days. Stem length ranged from 2 to 5 or 6 feet for all three, and while none are considered branching cultivars, at least one Trialer was able to get a second crop of side flowers.

The highest-scoring sunflower was **'ProCut Horizon'**, getting a score as close to perfect as we have ever seen in the Trials. Not surprisingly, one Trialer called it the "perfect 'sunflower' sunflower with dark center and golden petals", and several noted that the upward-facing flowers allowed them to be used more easily in bouquets.

'Sunrich Gold Summer' from American Takii and **'ProCut Gold Lite DMR'** from Sunflower Selections rounded out the trio. Both cultivars had green-centered, golden-petaled flowers. Interestingly, while a couple Trialers noted that difficulty of selling a

Photo Rachael Ackerman

sunflower without the classic dark center, we received this comment far less than in previous years: customer preferences might be broadening or maybe these cultivars were extra special!

Based on the combined ratings score (market appreciation + repeat again + ease of cultivation), the top five cultivars will be nominated for the ASCFG Cut Flower of the Year: Snapdragon 'Monaco Orange', 'Potomac Royal Improved' and 'Potomac White Improved', and sunflower 'ProCut Horizon' and 'Sunrich Gold Summer'.

Interpreting the trial results: The numbers reported are averages of all the respondents. Many factors will affect the success of any cultivar. Our participants grow and harvest Trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is narrow and high, i.e., 3-5 or 4-5, the plant was a winner for most of the respondents and is likely to do well for you. The 'Repeat Again Rating' is particularly important because it indicates if the Trialer would take the time, money, and space to grow the cultivar again. Review the results carefully. If a variety sounds interesting, but did not appear to do well, try it anyway; it may work well for you.

Acknowledgments: Thank you to each of the 17 evaluators who returned their Trial reports! We very much appreciate the time it takes to do the Trials. We want to especially thank Tanis Clifton for being the first Trialer to return her evaluations! Thank you to the seed companies for providing the plant materials. We would also like to thank Sydney Ruppert and Ingram McCall for assisting with the NCSU trials. In preparing the report we did a bit of editing of the comments for space and clarity; our apologies if we've altered the tone or content of anyone's comments.

Participating Trialers

Mackenze Burkhart
Michelle Elston
Roots Cut Flower Farm
Carlisle, PA
Zone 6b

Tanis Clifton
Happy Trails Flower Farm
Dennis, MS
Zone 7b

Connie Dam-Byl
William Dam Seeds
Dundas, ON
Zone 5

Dave Delbo
Dave's Flowers
Catawissa, PA
Zone 6a

Julio Freitas
The Flower Hat
Bozeman, MT
Zone 4b

Jason Funkhouser
Divisions Cut Flower Farm
Darlington, WI
Zone 5a

Janis Harris
Harris Flower Farm
St. Thomas, ON
Zone 6

Morgan Hopkins
Urban Buds:
City Grown Flowers
St. Louis, MO
Zone 6b/7a

Nathan Jahnke
John Dole
NC State University
Raleigh, NC
Zone 7b

Barbara Jewell
Island Meadow Farms
York, PEI
Zone 5b

Barbara Lamborne
Greenstone Fields
Purcellville, VA
Zone 7a

Jim Martin
Compost in my Shoe
Charleston, SC
Zone 9a

Denise Peterson
Blue Door Garden
Abingdon, VA
Zone 6a

Martha Pineda
Martha's Gardens
Dubuque, IA
Zone 5a

Jamie Rhoda
Harvest Home Flowers
Waverly, NE
Zone 5

Jamie Sammons
Jayflora Designs
Fonda, NY
Zone 5

Susan Wright
Shady Grove
Gardens & Nursery
Vilas, NC
Zone 6

Participating Companies

American Takii
Salinas, California
www.takii.com

AmeriSeed
Lompoc, California
www.ameriseed.net

Ball/PanAmerican Seed
West Chicago, Illinois
www.panamseed.com

Sunflower Selections
Woodland, California
www.sunflowerselections.com

Sakata
Morgan Hill, California
www.sakata.com

Syngenta/Goldsmith
Gilroy, California
www.syngentaflowers-us.
comAmerican Takii

Summary of Comments. Note: many respondents did not make specific comments on each cultivar and in a few cases, comments have been shortened because of limited space. The number in a parenthesis refers to the number of respondents who made the comment. If no number is present, only one person made the comment. Comments by each individual are separated with a semicolor (;).

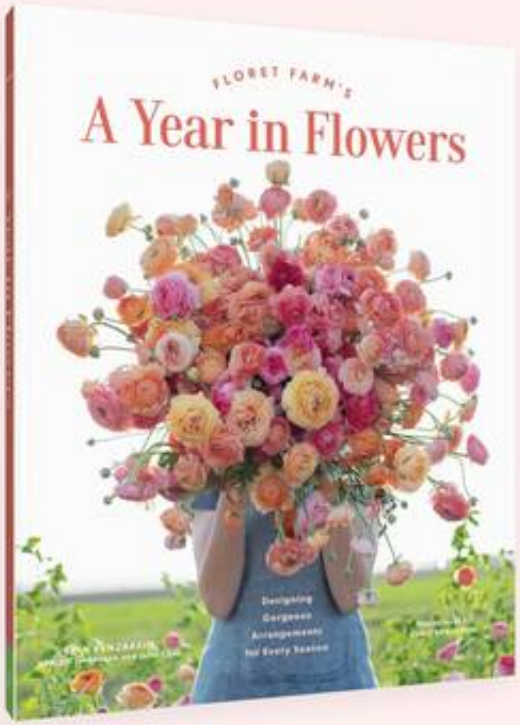
Aster 'Nina Plus Purple'
(American Takii)
Good Qualities: Vibrant deep purple colour (5); Great for mason jars and event work (boutonnieres and corsages); Beautifully-shaped flower, consistent colour and flower shape from plant to plant; Very salable; Market customers loved it, we grew this in the high tunnel; Small flowers, good as a filler; Spray of flowers is nice; Great at market!
Problems: Very short and branched (6); Although the plants branched from

'Nina Plus Purple'

about an inch above the ground, which would be great if they were tall, the stems were just too short to harvest individually, so we cut the entire plant at the base and used them in small arrangements; Need to cover to avoid leafhopper spread of aster yellows; Difficult to germinate, browning of the yellow center in field; We had disease issues with 80% of our asters this year; Deer and groundhogs like; Not high producer.
Similar Cultivars: 'Serenade'; Taller than 'Serenade'; Some florists bought in place of 'Monte Casino' aster.
Postharvest Recommendations: Clear 300.
Comments: Nice straight stems grew in raised beds and they did wonderfully; We harvested as a whole plant, but cut the sections apart to get 6 stems per plant; Our aster crop overall was poor the past two years, not from aster yellows but from very poor roots, and they did have some type of foliar fungal disease that affected 80% of our aster crop, I find asters less of a "sure thing" every year, will grow them again next season paying closer attention to disease prevention; Held in flats too long, may have stunted growth; Dried flowers lost their petals, leaving an interesting off-white texture, not sure we'll use in wreath work or not.

Cabbage 'Condor Red' (Sakata)
Good Qualities: Upright habit (2); Nice purple color (2); Small heads, loved the white better than the red but both great cultivars; Fun color for late fall bouquets; This is a perfect specimen of flowering cabbage, did not get as damaged by cabbage worm as other types, we grew this in the high tunnel to have more control of its environment, has a very hearty stem, we planted close together and had very straight stems; Okay without netting, stood tall and straight.
Problems: Rotted in the field with a spring planting; Some variation in colour intensity; Must be double fenced, worms a problem no matter how much we spray with BT etc.; This variety grew very tall, and did not form as compact a head as our Crane varieties, it is however shorter than kale 'Flare Rose', the taller the cabbage the more difficult it is to keep the crop from falling over, even when netted; It's a brassica; needing foliar sprays of Bt., harlequin beetles can also be a problem, this year, we set up a short hoophouse structure with insect netting over the bed of flowering kale and cabbage, reduced the need to spray considerably, no harlequin damage, (in years past, flowering kale has been decimated by harlequin beetles.) took a long time to flower!— seeded on May 18 and harvest began October 31, 166 days, thick stems, hard to work into small arrangements; Nothing particularly special, similar to Crane series.
Similar Cultivars: 'Crane Red'.
Postharvest Recommendations: Chlorine tablet for extended vase life, and less scent.
Comments: Late summer planting for a fall crop may provide better results; Too late to sell to our markets, too many worms to be worth growing; We had an extremely warm fall which led to the stretching of the cabbages, however, our Crane varieties did not stretch as much as the Condors, and developed a more compact and desirable head; Growing them under cover may have stretched the stem height; Both had great color after temps fell below 50 at night, definitely need to spray for caterpillars to prevent leaf damage.

Arena
The Arena series features fully double, large, high quality blooms on strong, sturdy yet thin stems.
Thick petals allow Arena to be transported well, and large buds on the top of sprays increase the attractiveness of each stem.
The series has a range of earliness of flowering with group I being the earliest and group IV the latest.
The Arena series offers a broad range of colors from pastel to vibrant, solids and picotees.
For more information contact your preferred broker or American Takii, Inc. / 831-443-4901 www.takii.com
TAKII SEED
Creating Tomorrow Today



FLORET FARM'S

A Year in Flowers

Designing Gorgeous Arrangements for Every Season

AVAILABLE WHEREVER BOOKS ARE SOLD

FLORETFLOWERS.COM

CHRONICLE BOOKS

'Condor White' cabbage has perfect cupcake-looking, small heads which are great for design work, best ornamental cabbage I've grown.

'Condor White'

'Condor Red'

Photo Jamie Sammons

Cabbage 'Condor White' (Sakata)
Good Qualities: Great frost colour! (4); Uniform colour and form; Perfect cupcake-looking, small heads which is great for design work, best ornamental cabbage I've grown, frost hardy; This is a great cabbage, did not have the problems with cabbage worm that we've had in the past, grew in the high tunnel for a more controlled environment, sowed both colors 6-23-19, was ready to pick in September, when planted close together had hearty, straight stems; Okay without netting, still stood tall and straight.
Problems: Rotted in the field during the summer if planted in the spring; Hard to fight the pests; Must be double fenced, worms a problem no matter how much we spray with Bt etc.; The 'Condor White' grew extremely tall, and did not form much of a compact head, the height made it difficult to keep the crop from falling over; Requires Bt for cabbage moth caterpillars, protection from harlequin bugs, slow to mature; 160+ days, thick stems—hard to work into small arrangements, can be heavy in bridal bouquets; Nothing particularly special, similar to Crane series.
Similar Cultivars: 'Crane White'.
Postharvest Recommendations: Chlorine tablet for increased vase life, and less scent.
Comments: Late summer planting may provide fall crop; Too late to sell to our markets, too many worms to be worth growing; The height was due to an unseasonably warm fall, but our Crane varieties did not grow as tall as the Condors, and also formed a more compact and uniform head; Nice to have something new and interesting at market at the end of October, customers loved it, I was afraid that like most brassicas they would have an "off" smell of sulfur decay, but even after a week in the vase, no smell was detected; Both had great color after temps fell below 50 at night, definitely need to spray for caterpillars to prevent leaf damage.

Campanula 'Campana Deep Blue Improved' (PanAmerican)
Good Qualities: This flower has amazing color (5); Good germination (2); Lots of florets, smelled great; The plants stayed green and healthy and flowered pretty much all season; Love the shape; Large flowers; I did not get the stem lengths because of not giving them the short days they needed, customers just loved it.
Problems: Too short for a cut (3), we tried it indoors in crates and in the field,

'Campana Deep Blue Improved'

both were the same result; Not all of the plants bloomed, thrips damage; Needs a very cool climate, if planted too late, they don't get very tall. I would not recommend campanula to every grower; Weak production; Toppled over, not enough support in greenhouse; Having to give it special treatment for proper stem lengths, if a person can devote the time, it is an amazing flower; Planted outside they didn't get enough length, possibly different if planted in the fall in a hoophouse.
Similar Cultivars: We grow campanula Cup & Saucer Mix, and we believe that 'Campana Deep Blue Improved' would be comparable to that variety if planted in the fall; 'Champion Deep Blue'.
Postharvest Recommendations: No hydrator or holding solution; Keep in cooler. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: I have never found an annual campanula that will produce a decent stem, perhaps a GA_3 is required? it would make a nice bedding or container plant but not for a cut; Greenhouse grown, need support netting; Didn't really use this variety due to its short stems, tried to fall-seed it for overwinter production in the hoophouse but two successions of seedings failed; The plants that did produce were productive (6 stems), then a second flush.

Celosia 'Sunday Bright Pink'
(PanAmerican)
Good Qualities: The color is amazing! (10), we need more bright pink celosia options for summer bouquets; Excellent producer, kept shooting up stems of useful length, good germination and vigour; Well-formed plumes and many usable stems per plant; Productive and of good height; Branched nicely after pinching; Nice shape and texture, kept producing usable stems for weeks; Plants were all very uniform, first-flush stems were all good quality, this was the earliest blooming of the Sunday celosias, it was also the most prolific producer of harvestable side shoots; Dries beautifully, great for masons or small arrangements; Good vase life, good branching, great fullness of plume.
Problems: Too short (6), usable only in low centerpiece arrangements, would not grow again because of height alone; Plumes were not super full; Short harvest window; None; Hot pink is not a trendy color right now, so although we loved this variety, we will not grow very much of it next year; Should have pinched better.

Sunday 'Purple', 'Bright Pink', and 'Orange Improved'
Photo Jamie Rohda

Similar Cultivars: Similar in height and productivity to 'Sunday Orange Improved'.
Postharvest Recommendations: Holding solution; Did not store in cooler, used immediately or color changes to a deeper tone. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: This was one of my top five of all the Trials this year; Colour lightened in late September to a washed-out pink, October flowers were light pink, okay, but not bright like in the rest of summer; Loved the color of these but it reminded me why I don't usually grow the plumed celosia, they seem to run to seed too fast, my florists hate it when seeds drop; Loved the colors, very bold in arrangements.

Celosia 'Sunday Orange Improved'
(PanAmerican)
Good Qualities: Loved the burnt orange color (9); Great for summer and fall arrangements and bouquets (4); Dries beautifully (2); Great vase life (2); Usable side shoots (2); The color seemed brighter and more vivid than 'Sunday Orange'; Tallest of the Sunday series in the Trial; Great germination, easy to grow, kept producing for a good length of time, we did not net this one and it stayed straight and sturdy until Hurricane Dorian in early September; Combines well in arrangements, many usable stems from each plant; Early maturity, good height, productive; We love 'Sunday Orange', the only difference I noticed between this trial of 'Sunday Orange Improved' and our regular plantings of 'Sunday Orange' were that the Improved variety did not have any weird/fasciated stems, whereas the non-improved version had a few in each planting; Great for masons or small arrangements; Very salable; Good branching, great plume.
Problems: Short stems (3), shortest of all of the Sunday celosias we grew; As with all celosia it does not like wet, cold weather of which we had both for the month of September, I think it would have produced a longer period if the weather had been favourable; Would prefer a taller bright orange variety but would still grow this again for design work; Muddy color; Flowers got botrytis and became unsalable quickly; It also was the least prolific regarding side shoot production after the main cut; Best grown inside.
Similar Cultivars: I honestly could not see a difference between the 'Sunday Orange' and 'Sunday Orange Improved'; 'Sunday Orange', Other Sundays.

Postharvest Recommendations: Plain water; Did not store in cooler, used immediately or color changes to a deeper tone. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: The 'Bright Pink Improved' and 'Orange Improved' bloom time were similar, the Sunday series is a reliable producer for us, dependable, we grow the mix every year, we do not irrigate and we had a very dry hot late July and August which may have affected the stem length; I actually prefer the 'Sunday Orange', I suppose it's a matter of preference but I felt like this one went to a muddy orange fairly quickly; A favorite for the beginning of the season as it reaches maturity a bit earlier than other varieties; I saw no difference between these "Improved" and 'Sunday Orange'; This was one of my favorite Trial varieties, loved the color, texture and vase life, dried beautifully for fall wreath work; We should note that we did not pinch any of these Sunday celosia, we harvested one large main stem from each plant, then were usually able to harvest a couple/few side shoots from the same plants after a couple of weeks; Loved the colors, very bold in arrangements; Always a great Sunday, we could not see any difference between this and 'Sunday Orange'.

Celosia 'Sunday Purple'
(PanAmerican)
Good Qualities: Beautiful deep purple color! (9); Customers raved about the color and want it for their weddings next year; Good germination; Consistent form and colour all season long; Very salable, has side shoots not counted above; Dried to a wonderful purple extremely useful in dried wreath work!; We loved this variety, very prolific side shoot production, which began even before we had harvested the main stem, it grew almost like it had been pinched; Dries beautifully, great for masons or small arrangements; Good vase life, good branching, great plume.

Celosia 'Sunday Orange Improved' had great germination, easy to grow, kept producing for a good length of time—we did not net this one and it stayed straight and sturdy until Hurricane Dorian in early September.

Problems: Plants and stems were too short (6); Did not produce, and plumes were small; I found the bloom on the purple was heavier/thicker and not as easy to use as the Orange and Pink, also the stalk was thicker; Okay for lower centerpiece designs but would grow this only for its popular color; Best grown inside; In order to get enough length, the first cut required taking the majority of the plant, wasting future side shoots; Hard to use for market bouquets; No problems.

Similar Cultivars: Other Sundays.
Postharvest Recommendations: Did not store in cooler, used immediately or color changes to a deeper tone.
Comments: We did not cut this one as much, the other plume type celosia offered more usable (cleaner) stems, it had more of a bedding plant behavior, bloom time was a bit later for this one, no irrigation and perhaps that stressed this variety more than the 'Bright Pink' and 'Orange'; Loved the color of this one but as with the other plumed varieties I find they go to seed too fast for us; Did not grow as tall as the other Sunday varieties; Would grow specifically for dried work next year, maybe try a small patch in the hoophouse to see if stems will stretch, great color!; Loved the colors—very bold in arrangements.

Delphinium 'Delphine Dark Blue White Bee' (Syngenta/Goldsmith)
Good Qualities: Great color and large flowers.
Problems: Too short (3); Did not bloom early enough to avoid summer heat; Our cut flower trials were on compostable plastic mulch this season, which delphiniums don't really like, however, our Pacific Giants next to Delphine were okay and are blooming now; I had poor germination especially with the Blue,

'Delphine Dark Blue White Bee'

'Delphine Rose White Bee'

I did not find it to be a strong variety, could have just been some production issues for us, my seedlings were not vigorous and only had a handful to go to the field, I would be surprised should they overwinter for us; Little to no production; Grown near other cultivars that were fall seeded and overwintered which did amazingly well.
Similar Cultivars: None listed.
Postharvest Recommendations: None listed.
Comments: I probably won't try this one again as there are other varieties that are easier and offer similar qualities; In our climate zone delphinium requires vernalization for increased production, we expected to have poor results with a spring planting, so our results were unsurprising; This one was lost in the summer chaos due to its short stems, tried to fall seed but seed failed twice as it was very hot and very dry this fall.

Delphinium 'Delphine Rose White Bee' (Syngenta/Goldsmith)
Good Qualities: Loved the color (2); A compact plant.
Problems: Too short (3); Some plants died before blooming; They did not germinate and thrive for us, it very well could have been a production issue with us; Little to no production; Just never got the height needed so it was forgotten, tried to fall seed but failed.
Similar Cultivars: None listed.
Postharvest Recommendations: None listed.
Comments: They did not transplant well with our compostable plastic mulch, so there were few small plants, and no blooms; Just the same as the Blue, possibility more usable than regular delphinium; I would not grow again as there are other varieties that work more consistently for us; Without a vernalization period we expected little to no production, so our results are unsurprising.

Digitalis 'Camelot' Mix
(Syngenta/Goldsmith)
Good Qualities: Great mix of colors (7); Robust plants; Quick to bloom, vigorous plants; Can't go wrong with any foxglove especially one that flowers first year!; Sought after; This cultivar was strong for a spring planting, if allowed a vernalization period, we believe it would be comparable to the Excelsior variety we fall plant; Great shape, nice to have a second succession of foxglove from spring-seeded plants, overwintered plants bloomed first and as they grew tired here came this next succession, continued to bloom well into the summer months; Good second flush, hoping they will perennialize; Strong stems.
Problems: Some plants did not survive the summer heat; On the shorter side compared to second year-flowering foxglove, but still every bit as usable and desirable; I got only one nice tall stem from each one and then several small stems, small stems were too short to be useful in my market; Plants were shorter than overwintered plants.
Similar Cultivars: None listed.
Postharvest Recommendations: High-walled buckets to prevent bending; Flower food, cooler. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: This mix could be improved with the addition of an apricot colour; Less spider mite than with other varieties; I wouldn't buy a mix of digitalis, would only grow straight colors, the apricot ones were definitely the best, I think we get too hot, too fast here so a lot of them burned in our hoophouse,

'Camelot' Mix

would probably have benefited from shade cloth; I sowed this at 70 degrees in a 50 tray, sowed March 4, transplanted April 28, didn't seem to suffer at all from all our rain this year.

Kale 'Flare Rose' (American Takii)
Good Qualities: Great color (6) after it cooled down temp wise; We planted this in the high tunnel so we would have more control with its environment, great stem strength, straightness; Great germination and growth rate; Early to colour, good height; Late crop; Appealing scalloped leaf shape; This variety was large, ruffly, and colorful, the ruffles are an interesting addition to our lineup of kales; Flaring leaves are different than cabbages; We liked this one, it got tall and required good support to keep straight; Attractive; Good vase life, good shape and look for cabbage rose; Wholesale customers liked its openness.
Problems: So much damage with cabbage worm, we planted along with Condor type flowering cabbage and worms went after this instead; Rotted in the field if planted in the spring; Needs support as all kale in my area and spray to prevent caterpillar damage to leaves; Most of the stems were

'Flare Rose'

way too oversized for design work, even when planted closely together; Must be double fenced, worms were a problem no matter how much we spray with BT, etc.; This specific variety grew extremely tall, and in some cases very wide, yet did not develop a strong center "flower"; The leaves of this variety are arranged much "looser" than other varieties, sometimes meaning that they looked thin or scrawny, however, they were the largest variety we grew; Long growing season—136 days, shorter than the cabbages, needs foliar spraying for cabbage moth, potential harlequin bug damage; We found it grew quite large (too large) and therefore had limited usefulness in bouquet work, it was on the same 4-inch spacing as the other varieties.

Similar Cultivars: Similar to the Lady series, but we preferred the more tightly-spaced leaves of the Lady series to the Flare series.

Postharvest Recommendations: Can be held in cooler up to 1 week before it starts yellowing; Chlorine tablets can increase vase life and decrease the coloring and scent of the water; Change water often.

Comments: May want to do a late summer planting for a fall crop; Too late to sell to our markets, too many worms to be worth growing; We have had a unique fall weather pattern here in central Pennsylvania this year, it has been unseasonably warm, which we attribute the extreme height of the cabbages to, that being said, Kale 'Flare Rose' was still significantly taller, and less well formed than the Crane varieties that we also grow; Groundhog ate all soon after transplanting; This was my first successful year growing flowering cabbages and kales, growing them under insect netting was advantageous as it cut down on the spray regimen, beautiful for late fall arrangements!; We grew the 'Flare White', also it was the tallest of any variety this year at 38-42 inches, the same issue with the very large heads, very attractive, just too large.

Lavender 'Blue Scent Early'
(Syngenta/Goldsmith)

Good Qualities: Good fragrance (3); Darker blue lavender heads (4); This lavender was very easily germinated (2), at 70 degrees it germinated in 6 days; It was easy to grow (2); Early to bloom with straight stems; This cultivar had good vegetative growth this year but no bloom, I was hopeful, but it was not transplanted until June; Put on a lot of growth in the first year, love using flowers and greens in floral wearables, looks like a promising variety; Fairly strong once it gets going; My favourite thing about it was the number of consistent quality stems, and being able to harvest over a long period, they seemed to stay viable on the plant if left for a while, it would be a good item for those in a harsh winter climate, where lavenders often do not survive, a first-year lavender such as this one would be a good alternative, I sowed this twice and the later planting was every bit as good as the early one, in fact October 23 we still have some good stems, on each stem there was the terminal flower which was several inches longer and larger than the shorter multi blooms on the same stem; One of my top five favs in the trials; It's still alive!; Comparable to other varieties such as 'Phenomenal', productive in terms of blooms; Most of the plants survived our torrential rains of this past summer; Bloomed from seed first year; Nice flowers.

Problems: Too short (5); Despite being sown, bumped up, and planted at the same time and into the same bed as the 'Early Scent White', the 'Early Scent Blue' did not survive our summer; Hoping to get longer for next year's growing season; Poor germination, even worse than the white variety; I found when we dried the stems many of the "buds" dropped, this could have been from the timing too mature, each grower would have to experiment to find the ideal harvest window for drying; Best used for small lavender sachets and boutonnieres.

'Blue Scent Early'
Photo Mackenze Burkhart

Similar Cultivars: 'Elegance Purple'.
Postharvest Recommendations: If you are drying, make sure they are not over mature to prevent bud drop/shatter.
Comments: Slow to grow and bloom, but fairly disease resistant; We aren't always successful at overwintering lavender here but we're going to cover it for the winter and hope for the best next year; Guessing like other lavender plants in my life, that these plants will grow and be much bigger next year, while most of my lavender grows inside an unheated hoophouse, these plants are outside, may they survive and thrive under a cover of leaves and floating row cover this winter; Easy to germinate in soil blocks, well established plants for overwintering.

Lavender 'White Scent Early'
(Syngenta/Goldsmith)
Good Qualities: Love the unusual grey-white colour (3); Great scent (2); Lavender is hard to grow in our area, but the 'Early Scent White' thrived with no special care necessary; Vigorous grower, dries beautifully to a silvery white; Great for use in wearables and color fits into most wedding design work, looks like a promising plant for next year if it survives the cold; Fairly strong once it gets going; It held up well in corsages, as with the Blue, I was surprised with the ease of cultivation, the plants stayed healthy and required no special care, to have an annual produce consistent stems has put this variety on one to grow; It's still alive!; We had great germination, seeds were up in 4 days at 70 degrees, unlike the Blue, the white did not all survive our rains of this summer, both were planted in the same row and had the same sun, we planted in a raised bed at the top of an incline as not to have standing water.
Problems: Stems were short (7), but that is to be expected in their first year; Older blooms get brown parts, like most white flowers; Poor germination, did not bloom the first year; Little production, and the blooms turn brown very fast; While white flowers were anticipated, insect damage was extensive, hoping that plants will be bigger and stronger after a long winter's nap and the anticipation of white blooms will rebound with spring; Best used for short lavender sachets and boutonnieres; Not as many flowers as the Blue.
Similar Cultivars: None listed.
Postharvest Recommendations: Cut before too mature to avoid bud drop.
Comments: We are looking forward to seeing what these do next year, market customers seemed particularly intrigued by the white flower buds as opposed to the blues and purples they are familiar with; Slow to grow and bloom, but fairly disease resistant; As the white lavender matured we would often see touches of pink in some of the stems, we have already ordered seed for 2020, recommended for a lavender to grow where the perennial does not consistently survive; Just like the Blue, it survived the summer and we'll do our best to overwinter it; We did use the foliage from these plants in design work at times, but mostly we found it to be unusable; Easy to germinate, strong well-established plants, hope to overwinter in Zone 6.

We are looking forward to seeing what lavender 'White Scent Early' does next year—market customers seemed particularly intrigued by the white flower buds as opposed to the blues and purples they are familiar with.

Lisianthus 'Arena Purple'
(American Takii)
Good Qualities: Great deep purple (6); Both varieties produced a decent, although shorter, second flush (3); Large double blooms, didn't need too much care; Germinated well with the white more predominant, had no disease issues; I was able to keep it in the cooler two weeks for a wedding that needed purple; Early blooming; Great for summer and fall bouquet work, nice flower shape with whorls of petals, tall plants, easy to work with, continued to bloom even as light levels dwindled; Both of these are solid, standard lisianthus, they had good stem length in the field, and the purple was able to withstand some rain without becoming bruised or spotty; Open-faced ruffles in petals.
Problems: Slow to grow; Poor germination; Thrips damage noticeable on the purple blooms; Caterpillar magnet, needed Bt and hand picking to maintain.
Similar Cultivars: 'Echo Blue'.
Postharvest Recommendations: Holding solution; Keep water clean. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: We should have protected it from wind and rain damage, this is a

'Arena Purple'

Group 1 lisianthus, but it grew similar to Group 3s that we were also growing; Some worm damage inside; As we grow without irrigation outdoors, our home seed-sown lisi struggles at times to get good stem length, I usually purchase ours as starts which seem to be able to deal with our irregular conditions easier, going forward I would start the seed earlier than I did this year to see if that would be beneficial; Lisianthus takes so long to grow is the only reason for my rating on question #10, if I have the money I prefer to buy plugs; Besides a slight variation in bloom time, most lisianthus look alike; This was my first success in growing lisianthus from seed—so proud! opens opportunities for me to try to germinate these varieties in the future rather than just purchasing plugs, these plants were grown in a hoophouse environment thus they were tall and had spotless blooms, dark purples often get spotty with rain when grown outside; We also grew 'Arena Baby Pink' from a purchased plug and it had an 20-23 inch stem average;

Lisianthus 'Arena White'
(American Takii)
Good Qualities: Vibrant white (4); Both varieties produced a decent, although shorter, second flush (2); Long-lasting blooms, good double; Both of these are solid, standard lisianthus, they had good stem length in the field, and the purple was able to withstand some rain without becoming bruised or spotty; In demand; Good germination, the stems while short due to weather conditions were strong and upright, under more ideal conditions it would be one to try; Early blooming; Tall strong stems; Bell-shaped flower, lots of blooms per stem.
Problems: Some browning of petals due to being grown with no protection from elements, would be better grown under cover; On the shorter side, not as vigorous as 'Arena Purple', Poor germination, worms in high tunnels; None; Didn't like the open nature of the bloom, I tend to like more ruffles in my lisianthus blossoms.
Similar Cultivars: 'Echo White'; We like

'Arena White'

'Mariachi White' and 'ABC White' better than 'Arena'; There are so many lisi varieties, I think it's personal preference to choose the variety that works best for your growing conditions and where it is being used.
Postharvest Recommendations: Holding solution; Clear 300. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: We were surprised by how easy it was to grow this plant; Some worm damage inside; Grown with irrigation this variety would have had longer stems, our month of August was hot and dry, if growing lisi from seed in the future, I would grow in a tunnel to improve quality; Lisianthus takes so long is the reason for rating in question # 10-11, if we have the money prefer to buy plugs; white lisi is an easy sale to florists for weddings; Happy to have had the chance to grow lisi from seed for the first time, I'm encouraged at how easy it was, in the past, I have failed, losing quite a bit of money.

Marigold 'Bali Gold' (AmeriSeed)
Good Qualities: FABULOUS gold color (6), my favorite gold; Smaller plant, sturdier stems; Lots of flowers; Great for garlands and market bouquets, but definitely short; Huge first flowers; Nice, thick, sturdy central stem that opens to a VERY usable tight spray, one stem, bouquet complete, definitely growing this again!; Color mixes well with other fall flowers; Great both fresh and dried, plant was more compact then others I've grown; Tall stems, good branches, usable for bouquets.
Problems: Too short and very branched (6), so there were no stems long enough; Weak heads, only 1 stem per plant; The benefits of the great spray far outweigh the bending over to harvest, this cultivar still has enough length for standard bouquet work; This one was the shortest of all the Trial marigolds, it also did not naturally branch well, so rather than harvesting single stems (or first harvesting/pinching out the middle bloom then cutting single stem side shoots), we had to cut the main stem low and take them as a spray, we were able to separate a few stems into more than one marketable stem, but generally these were our least productive marigold; Few blooms, and early disease, we had early significant rain, stunted growth; Late to bloom, the only way to harvest any blooms that were even close to bouquet length would be to cut the entire plant; Took half the plant to get a decent stem length, lots of cutting of side branches, green centers of young flowers unattractive; The stem growth was weak compared to other cut cultivars I have grown, it is a medium-sized grower for us, not something we need in our mix; Stems became brittle when harvested later in season.
Similar Cultivars: 'Big Duck Gold'; 'Coco Gold'; Not really.
Postharvest Recommendations: Like all marigolds, the heads on these are quite prone to breaking off, so it is important to minimize the number of times you touch/move them postharvest; Keep water clean; Change water often.
Comments: Great color, just difficult because it's more of a landscape size and stems seemed to get really bulky, overall great for garlands and large focal flower; Even though people use these just as flower heads, it is hard work

bending over so far to cut the stems, so a bit more height would be helpful!; This would be a great landscape plant, bushy, compact, great orange color.

Marigold 'Bindi Orange' (AmeriSeed)
Good Qualities: Deep orange color (6); Strong stems (3); Great producer, straight stems; SINGLE STEM WITH AN AMAZING CLUSTER, definitely no side shoots, but the cluster was great, one stem, bouquet done!; Good doubleness; Good germination and easy to grow, no disease issues, excellent bloom size and quality, overall height was 36 inches, bloom size was 4 inches; Large flower heads; It had medium heads compared to the size of the typical cut cultivars I grow, it could be useful in floral design where a smaller head is needed for the purpose of scale; Nice dark orange color when dried; Long vase life, good stem length great for market bouquets; Our favorite though not many side stems due to height.
Problems: Extremely short (4); Not really a problem, but definitely grows shorter than most marigolds, so it is definitely a "bend over and cut" variety; Shorter than others; Very limited number of stems per plant; Too branched so it was more work to remove side shoots to get a stem over 12 inches; Needs support and I pinched after planting; Orange is quite pale, almost gold, taller than Bali; Few blooms, and early disease, we had early significant rain; Bushy, and late to bloom, the only way to harvest any bouquet length stems would be to harvest the entire plant; For us the necks were very weak; Japanese beetle magnet; Plants also did not branch from the base, so we mainly harvested one large, thick stem that had several blooms at the top; It was weak stemmed compared to the Giant series that I typically grow, understanding they all have stem rigidity problems, so this one isn't that much different, in our trial it was not a robust cultivar in flower production or stem length; Early disease pressure in outdoor production, flower blossoms began to rot from the underside, blossoms prone to insect damage; Stems became brittle when harvested later in season.
Similar Cultivars: No.
Postharvest Recommendations: Handle very carefully to prevent bent neck; Keep water clean.
Comments: Darkest orange color of all Trial varieties; Japanese beetle candy as are all marigolds, excellent producer; Lots of early rain; This and all the marigolds in the Trial were a disappointment for us as a cut, all were started in our greenhouse and transplanted to the field through bio black plastic with no irrigation, all 8 marigolds in the Trial grew very well for us, we had issues with Hurricane Dorian in early September which caused a lot of them to blow over despite netting and extra stakes, up to the storm the blooms were excellent, they were easy to grow, however, we had a frustrating time with bent neck, I would very much like to know if we could apply a nutritional supplement to help prevent this issue; Great fresh or dried.

Marigold 'Coco Deep Orange' (Sakata)
Good Qualities: Great orange color! (7), deeper orange color than others; Nice-sized heads (3); Nice height and stem length, comparable in height to 'Optiva Orange'; That is exactly what I would expect a marigold to look like, the stems seemed relatively sturdy, there were a good number of flowers per stem, this variety would make a great focal flower in a market bouquet; Love how it mixes with the rest of the arrangements; Nice stem size; I think the color was richer than 'Giant Orange', the other cultivar I typically grow, the flower size was a little bigger and the plants performed in our heat and humidity, the stem strength seemed to be no different than 'Giant Orange'; Nice long cuts on all of the Coco series; Very long lasting—best of the Trials! great overall plant health; This is a great fresh and dried flower; Good vase life, tall, straight usable strong stems.

'Coco Deep Orange'

Nice long cuts on all of the Coco marigold series; very long lasting—best of the Trials!

Problems: Japanese beetle magnet (3); Similar in color to 'Optiva Orange', later to bloom than 'Optiva Orange'; Always need to fence from animals, even with fencing this one was eaten several time—no results; Centers of young flowers darker green tone, which isn't pleasing to the eye, looks brown, field-grown plants were susceptible to disease, many were unusable after 6-week bloom time; Typical problems with marigold as a cut flower, weak connection close to the flower head, but no different than any other cut marigold cultivar; Some of the stems snapped and the heads flopped over; Stems weakened after being harvested for a long time, first through third stems were the best.
Similar Cultivars: 'Jedi', 'Giant Orange', but I thought this one was better; 'Giant Orange'; 'Garland Orange'.
Postharvest Recommendations: Hydrator and holding solution; Keep water clean; Clean water. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*

'Coco Gold'

Comments: This variety was the closest to our favorite variety, 'Optiva Orange', it is the variety we would likely grow again if we needed to introduce another highly productive orange; Marigolds are kind of a hard sell to most of our customer base of florists but those who buy marigolds loved these; Great fresh or dried; I am in love with the Coco cultivars, I will switch and grow these instead of the Giant series; All marigolds trialed last in vase with clean, changed every other day, water and floral food for nearly 3 weeks; After a few days, the blooms actually had a sweet scent, pleasant surprise! plants fell over in a windburst, but after a few weeks they started to form new stems and buds; Love.

Marigold 'Coco Gold' (Sakata)
Good Qualities: Great gold color (4), nice intermediate between orange and yellow varieties; Nice long cuts on all of Coco series; Vigorous and healthy plants filled with quality blooms; Nice large heads; Comparable height to 'Optiva Orange'; Huge 4- to 5-inch blooms, best of the gold marigolds in trial, long stems—best stem length of gold marigolds in trial, most disease resistant of all marigold trials in field production, excellent color retention when dried; The side shoot growth was good and while the flower size decreased in half over the summer, it was still a high quality cut stem, I traditionally have been growing 'Giant Orange' and 'Giant Yellow', so having the nuances of this color in my offering was super; Good vase life, tall, straight usable strong stems.
Problems: Fragile heads; Center head is so big that many broke under their own weight, especially with rain; Always need to fence from animals, even with fencing this one was eaten several time—no results; Light orange in color, not truly a "gold", later to bloom than 'Optiva Orange'; Typical marigold problems of weak stem connection near the flower head, I hate that snap sound heard too much with marigolds; Stems weakened after being harvested for a long time, first through third stems were the best
Similar Cultivars: Similar color to 'Bali Gold' but not in height or stem length; Color wise, in this size, no.
Postharvest Recommendations: None listed. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: This colour is similar to 'Bindi Orange'; We harvested some stems as a single spray and some side shoots were long enough—12-16 inches—to use in bouquets; All marigolds trialed lasted in vase with clean, changed every other day, water, and floral food for nearly 3 weeks; Again, lovely flower but hard to sell in my market, hard to get an accurate stem count as the bed was so full and lush it was hard to tell which plant we were cutting from but they were great producers; Favorite gold marigold to date, will definitely grow again!; I think this color is a nice addition when needing a softer color for design work.

Marigold 'Coco Yellow' (Sakata)
Good Qualities: Fresh yellow colour (5); Very productive (2); Tall plant, sturdy; NICE LONG CUTS ON ALL OF COCO SERIES; Good doubleness, same great plant health as rest of Coco series; Easier to cut, less branchy than other, more vigorous, straighter stems; Nice large heads; Earlier to bloom than other yellow varieties; Customers at market really loved all the Coco series, good stem strength; 3-inch blooms, nice stem length, nice head shape, similar in size to other Coco colors, beautiful marigold! dries well, smaller head size that's nice and easy to use in bouquet work; Good vase life, tall, straight usable strong stems.
Problems: Weaker stems/necks than 'Garuda Yellow' (2); Did not branch well; Some flower heads flopped over and stems snapped; Always need to fence from animals; Japanese beetle magnet; More misshaped blooms than other yellow varieties; Stems weakened after being harvested for a long time, first through third stems were the best.
Similar Cultivars: 'Oriental Yellow'; 'Babuda Yellow', and 'Oriental Yellow' were not as good as 'Coco Yellow'; 'Garuda Yellow'; Similar in height and productivity to our favorite variety, 'Optiva', and comparable to 'Oriental Yellow' as well; 'Falcon Yellow', has a smaller bloom size which is nice.
Postharvest Recommendations: Hydrator and holding solution; Clean water.
NC State conducted vase life testing of

this cultivar; see article in this issue for details.
Comments: All marigolds trialed lasted in vase, changed every other day, water and floral food for nearly 3 weeks; A solid option for yellow marigolds; Not everyone appreciates marigolds, but their colors are so vivid and striking, especially into the fall months when I can't grow enough yellow and orange, some are put off by the marigold scent, but once you strip the leaves, the flower doesn't really have a strong fragrance.

Marigold 'Garuda Yellow'
(AmeriSeed)
Good Qualities: Bright yellow color (3); Really tall sturdy plants; Flowers seemed larger than normal; Good vase life; Nice large heads, very productive; Very long, strong stem, and easy to strip, good late season option, when stems are becoming weak; Attractive green centers when immature, uniform head formation, nice shape—round and puffy, good stem length, longest of the yellow trials, dried flowers hold a beautiful yellow color.
Problems: Just like any other marigold, the stems are hollow which makes the heads really heavy compared to strength of the stem, so they easily break; Disease and need to fence from animals; Japanese beetle magnet; Yellow tends to attract more insect pests; Too thick and short, hard to cut and remove most of plant to get a stem.
Similar Cultivars: It is literally the same as 'Coco Yellow'; 'Oriental Yellow', 'Oriental Yellow' and 'Babuda' are better varieties of yellow; 'Falcon Yellow'.
Postharvest Recommendations: Keep water clean; Marigolds don't seem to care if they're in water or given food, they just need lots of it, during the dry heat, they sucked it up out of the vase! replace water often. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: This was our favorite Trial marigold of the season—we will be growing it again; This marigold was great fresh and dried; Half of my marigold trial was conducted in the field while the other half was grown in a ventilated greenhouse—field plants had 2 weeks of bloom time before disease began, a wet early summer could have been the cause, but my experience over many years of marigold growing is that these plants grow much better: longer, taller, healthier and stronger in a covered structure, even after a hard freeze these plants are still producing blooms, whereas the field plants are LONG gone.

Marigold 'Narai Orange' (AmeriSeed)
Good Qualities: Pretty orange color (6); Very nice tight top cluster of blooms with a definite central stem below, one stem and bouquet is complete!; Great producer; Plentiful small- to medium-sized blooms; Necks seem stronger than many varieties; Excellent hardiness, both fresh and dried; Beautiful 3-inch blooms, very productive and long lived in covered structure, beautiful dark orange color when dried; Of all the orange selections tried this year, this one, excluding the 'Coco Deep Orange', had longer stems in my trials, medium to large heads compared to some of the other cultivars.
Problems: The heads tend to get too big and heavy; The cultivar was too branched, we had to remove a large number of side shoots to create a stem 12 inches long; Weak plant health—was first to get disease in the patch; Disappointed in the number of blooms, stunted looking; Light for an "orange" marigold variety, extremely short before the first cut, then approached a usable length, later to bloom than our favorite variety 'Optiva Orange', not highly productive; A magnet for Japanese beetles; Field plants had the worst disease pressure of all marigold trials, produced blooms for only 3 weeks before plants were unusable, orange blossoms with concave centers, stem length a little short for market even when grown in covered structure; It was weak stemmed compared to the Giant series that I typically grow, understanding they all have stem rigidity problems, so this one isn't that much different, in our trial it was not a robust cultivar in flower production or stem length; Too short and stalky plant, had to cut and remove most of plant to get a usable stem.
Similar Cultivars: 'Coco Orange'.
Postharvest Recommendations: Keep water clean; Lots of water, their vase life is amazing in just water.
Comments: We did not sell any because this was not usable in the wedding arrangements we made throughout the summer; Great for bouquets, manageable size to design with; These were in a later planting and we didn't get to harvest enough to get good data on them but they seem very promising; This variety is not conducive to bouquet production operations; Looks great dried for fall dried flower arrangement; We love these as a spray stem, a little short for harvesting, but worth it, would definitely grow this again!

'Garuda Yellow'

Marigold 'Oriental Yellow'
(AmeriSeed)
Good Qualities: Beautiful yellow color (6); Great stem length, good manageable sized heads; Vigorous plants; Super tall so very easy to harvest; Good grower; Good height and stem length; This is a great cultivar, stem strength

'Monaco Orange'

excellent; Big 5-inch yellow blooms; Small heads, nice size stems, beautiful for cut flower work, nice head, form strong stems.
Problems: The color is not suitable for wedding design in our area; I thought the huge heads looked a bit weird before totally opened, this was in a late planting so we didn't get to harvest from it for very long, this problem may have only been with the very first large buds; Slightly later to bloom, stems become weak as season progresses; Japanese beetle magnet; Disease issues within 3 weeks of bloom time in field-grown plants, disease issues totally overtook plants within 6 weeks of blooming; Too short and stalky plant, had to cut and remove most of plant to get a usable stem.
Similar Cultivars: 'Garuda Yellow' (2); 'Coco Yellow' (2); 'Coco Yellow' is nicer' 'Falcon Yellow'.
Postharvest Recommendations: Clean water. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: We cut some as a spray and some as individual side shoots as they were long enough, 12-16 inches, for bouquets; Lots of early rain; If I had any unused marigolds in the cooler after 10 days, I would dry them, worked every time; Yellows are always a favorite variety, grew much better in a covered structure.

Snapdragon 'Monaco Orange' (PanAmerican)
Good Qualities: Very vibrant color (13), was a hit with both florists and at farmers' markets; Very tall sturdy straight stems even without netting (4); Produced throughout summer; Uniform plants; We typically grow 'Opus Early Bronze' but the color of 'Monaco Orange' was much better, we will grow this variety in the future; Good shelf life in the cooler, this cultivar was still giving off a few flowers when we closed down the garden; Sold even in the spring; This was another favorite of ours, fantastic for a field-grown snapdragon, stems were strong and flower heads were large and full; True snapdragon shape that can "talk" to customers, children always enjoy a good "snap", bloomed in spring and fall; Great size flower spike, good second flush; We split the seeding on this variety, saving a tray for late production, we have some just starting to bloom right now on October 7, they are field planted, just in soil and not netted, our September has been very cool and wet, they are not as tall as the early planting but useful for bouquet work, a good variety; This is a great flower! the spikes were huge, stems tended to break easily, perhaps the inflorescence was too big!
Problems: Stems were on the short side; None; Didn't get a great second flush late season; Wimpy late in the season, the normal time for this color; Had to be netted.
Similar Cultivars: Similar to 'Cool Orange', we may be replacing our usual 'Cool Orange' with the 'Monaco Orange', as the flower heads on the 'Monaco Orange' were much larger; Compared 'Monaco Orange' with 'Potomac Deep Orange': 'Monaco' has rosier red petaling at the top of the mouth, less pronounced yellow tones and a more muted darker orange, less bright and "popping" than 'Potomac Deep Orange'; 'Potomac Orange', 'Overture Orange' not as good.
Postharvest Recommendations: Try to keep the stems straight in tall buckets but don't crowd stems, we use hydrator if required otherwise just in #2 grower solution from Chrysal; Use a high-walled bucket to prevent bending, store in a cooler if not using immediately; We use Clear 300; Stems need to be kept upright after harvest to prevent bending, we use, thin-walled 4-inch diameter pvc pipes cut to 12-inch lengths that fit inside a 5 gallon bucket. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: Loved this variety, will grow again!; Caterpillar feeding was bad this year; We got only one large stem from each because we didn't pinch and we had to tear them out before they had a chance to regrow, will pinch next time; Some worm damage inside, grown inside a high tunnel.

Snapdragon 'Potomac Royal Improved' (PanAmerican)
Good Qualities: Stunning purple rose colour! (12), popular with both florists and at farmers' market; Strong, thick stems (4); It was our tallest snap, lots of great stems at the same time, not just 3 at a time but more like 7 ready on each plant at once, impressive; Great for summer and fall; BEST snapdragon I've ever grown and we grow a lot of snapdragons, tallest and most sturdy thick stems I've ever had, great for statement arrangements, florists love them, will grow again; Lots of usable stems; Very good rebloomer when grown in a high tunnel; This snapdragon was one of our favorite things we grew for the Trial, sown in February and planted out in the field, we were harvesting them by the last week of May, about 10 days earlier than the 'Potomac White Improved' that was sown and planted at the same time; Very unique, customers loved it; Great addition to arrangements; Good second flush; This is a great flower! the spikes were huge, stems tended to break easily, perhaps the inflorescence was too big!

Problems: None (3); We had an issue with the lower petals of this variety browning, as well as the 'Potomac White Improved', it was unclear if the issue was due to disease, or just a shorter field life, we did not experience this issue with the other varieties we grew including the trial of 'Monaco Orange'; Had to be netted.
Similar Cultivars: None listed.
Postharvest Recommendations: High-walled bucket to prevent bending, and cold storage if not used promptly; Keep stems upright so they remain straight; We use Clear 300, keep in cooler. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: This was my fav snap of the trial; Did okay without support, but it would be helpful to get long straight stems, had an issue with caterpillar feeding this year on all snaps; We used a stake and mesh system for this variety with great success; Some worm damage inside; Despite the issue with the lower petals, we would be willing to try to grow this variety again for its unique color; Keeping this cultivar in my selection; Was able to keep in cooler up to two weeks.

Snapdragon 'Potomac White Improved' (PanAmerican)
Good Qualities: Great pure white (5); Strong stems (3); White color for bridal work; Full spikes; Productive; Excellent vigor, height, rebloom plus it's sturdy, high quality rebloom; This variety had good strength and length; Very hardy; Thick stem, large flower spike; We sowed this crop in February and planted out in the field, stems were nearly of the same quality as greenhouse-grown snapdragons, tall, strong stems with good-sized flower spikes, we were lucky and did not have any issue with thrips on these; Straight strong stems even in late fall production, light fragrance; Love! tall and really white! good second flush.
Problems: Rain makes blooms transparent and also they seemed to brown fast if left too long before harvest, best luck was 3-4 flowers open, otherwise they needed cleaning up; Worms; We had an issue with the lower petals of this variety browning, like with the 'Potomac Royal Improved', it was unclear if the issue was due to disease, or just a shorter field life, we did not experience this issue with the other varieties we grew including 'Monaco Orange'; None; Had to be netted; Beetles were a huge problem so flowers were challenged.
Similar Cultivars: 'Potomac White' (2); 'White Opus' not as good; This cultivar was comparable to the white that we typically grow, 'Maryland White'.
Postharvest Recommendations: Cut early morning into cold water, use hydrator if required, after hydrated place in #2, a tall bucket to support stems from curving; Holding solution; High-walled bucket to prevent bending, cold storage if not used right away; We use Clear 300, keep in cooler; Keep stems straight. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: Best of the trials; Providing support would provide straighter stems; All snaps grown for a single strong stem; Mesh really helped to keep the stems straight and plants growing tall; We pinched these and got two very nice stems from each, couldn't see much difference from the 'Potomac White'; Due to the problem with the lower petals it is likely that we will stick to growing 'Maryland White', but because the strength and length were comparable, it would be an option if we ever had an issue finding 'Maryland White' seed; Greenhouse grown; We plant our snapdragons generally intending to harvest one single stem, but sometimes we have subsequent harvestable stems if we do not get around to flipping the bed in time, that was the case with some of these, and we were able to harvest on average 2 to 3 more stems from the same plant, although these stems were much smaller, they were perfect to use in our market bouquets; Lovely variety, will grow again.

Potomac 'Royal Improved' and 'White Improved'

Stock 'Katz Hi Double White' (PanAmerican)
Good Qualities: Almost all double flowers (5); Lovely fragrance (4); Great flower and shelf life; This was truly outstanding, lovely long blooms, large, well filled and a brilliant white, maturity was very even, easily harvested within 3 days, very impressed with this one, my #1 favourite in the trial; Katz stock never disappoints, stems were long and sturdy, flower spikes were full; small amount of green in center was great; Similar length and vase life to our favorite variety Japanese All Double (JADS); Beautiful growth in spring and fall months, easy to germinate; Taller than other stock, beefier than others; Beautiful large doubled flowers; Nice full flowers, happy to see this is a Katz.
Problems: Stems were short; Most grow in cold climate; Does not do well in summer heat, especially on black plastic mulch; Less strength and uniformity than JADS, in this case uniformity mostly refers to there being more singles in the mix; Even with horizontal netting stems grew curved; Florist don't buy stock from us.

'Katz Hi Double White'

Katz stock never disappoints, stems were long and sturdy, flower spikes were full; small amount of green in center was great.

Similar Cultivars: 'Japan All Double White'/'White Beach'; With JADs seed possibly going out of production, this would be a strong contender for us as a replacement; Very similar to Cheerful Series (white varieties); 'Katz White' not as good.
Postharvest Recommendations: Change the water to keep this available out of the cooler for a few weeks; Chlorine tablets can be used to decrease scent; Keep stems upright, similar to snapdragons, we use 4-inch thin walled pvc pipes cut to 12-inch lengths tucked into 5-gallon buckets to keep stems straight in groups of 12-20 stems.
Comments: This variety was excellent, I had other Katz varieties, however, the blooms on this brilliant white stock was superior to all others, almost 100% double, consistent, recommend this one, I think it would be a good candidate for succession sowing; Unimpressed, short stem probably due to the heat that we get so soon in spring; Additional support would provide straighter stems; I am certain that we grew this at the wrong time of year for its best success; All our stock is grown in a hoophouse with shady ends, low light levels didn't deter stock from blooming on time, fragrance was amazing!; I really like this one; Customers commented on scent.

Sunflower 'ProCut Gold Lite DMR'
(Sunflower Selections)
Good Qualities: Great color of light center and golden petals (3); They tended to all bloom at the same time, within a few days of each other (2); Sturdy (2); Perfect size when planted tight at 4 inches apart, straight stems, upward-facing heads, grew well in hot dry conditions, on barely any rain; Any sun variety which offers downy mildew protection is always a plus, especially during late season with variable temperatures and less sunlight; Very sturdy neck, perfectly shaped disk, this cultivar reminds me of a gerbera daisy; Healthy foliage—and we did have DM present; A unique color, lighter than that of a traditional "orange" sunflower, the light green center is vibrant; Typical light-centered sunflower, quick blooming period; Vigor, color consistent; Good vase life, like other suns, nice overlapping petals, perfect size side shoots.
Problems: Missed a few late fall harvests because they "blew open" too fast, they bloom on the same day and if you miss them by 4-5 days, they're too far past, could be due to the excessive hot dry weather we had; Market customers don't readily purchase light-colored faces as well as dark, this was a beautiful strong flower; Had to pick at claw stage as corn beetles damage the petals; Higher pest pressure than 'ProCut Orange', stems not as strong as 'ProCut Orange'; None; Nothing spectacular or outstanding, we do not have (yet) a problem with downy mildew so can't evaluate.
Similar Cultivars: 'Sunrich Gold Summer' (3); 'ProCut Gold' has been my "go to" for green-centered sunflowers for years, nice to have a new option that offers a smaller, more compact head size; 'Vincent Fresh'.
Postharvest Recommendations: We used FloraLife 300 upon harvest; We have stored this variety dry lying flat in a covered box in cooler at 36 F for up to 10 days with no issues after rehydrating, they have the same vase life as those picked fresh, harvest when petals are starting to unfurl as with most suns; I use Chrysal CVBN tablets; Postharvest included chlorine tablets for 4-5 days, then changed the water every 2 days. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: Flowers a little smaller than the 'Sunrich Gold Summer'; Most of the ProCuts have a smaller centre which is less desirable than the Sunrich types, the colour was good and if growing again I would choose this one mainly for the DMR and reliable timing of the ProCut series, will definitely grow again; Definitely adding this one to my sunflower growing list, spacing did not seem to increase head size, in fact they were somewhat small based on the

10-12 inch spacing but still got a good usable head size, which may have been due to excessive rain, but we had really short stems; Sunflowers with light centers are not popular with our farmers' market customers, or in our grocery store wholesale bouquets; Would grow if color was in demand.

Sunflower 'ProCut Horizon'
(Sunflower Selections)
Good Qualities: Perfect "sunflower" sunflower with dark center and golden petals (8); Upward-facing blooms (4) which is a plus in bouquets; Sturdy and consistent growth; Great compact head size, straight stems, pollenless blooms; Great single stem sales; Small flower size, consistent colour, did well as a late-season planting; Strong stem, similar bloom time with 'ProCut Orange'; Great shape of petals, overlapping petals, full bloom, side shoots with small heads, great for mixed bouquets.
Problems: Must be double fenced; The harvest window was longer than other ProCut varieties, although not crucial for us but might be for some growers; Stems can be a little thick; Little big for bouquets, but great as a focal in larger pieces; None.
Similar Cultivars: 'Vincent Choice' (2); 'Sunrich Orange', the other ProCuts; Similar habit to 'Orange Excel' but slightly different colour.
Postharvest Recommendations: Cut when petals are starting to unfurl, check every day after cutting the first stems, ours were not ready within 1-4 days, they went on for 1-8 days for a harvest window; We used FloraLife 300 upon harvest for longer vase life; Cvb tab in water could hold up to 2 weeks; I use Chrysal CVBN tablets. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: Couldn't really tell the difference from 'Vincent's Choice'; A good sun and an improvement over 'ProCut Orange', similar features to 'ProCut Orange Excel'; Last seeding of August 27 bloomed on November 1 in our hoophouse, spectacular, small head sunflowers that lasted 2 weeks in the cooler, mixed with 'ProCut Gold Lite' they make a stunning sunflower arrangement; We liked the upright head and consistency, we would likely grow again.

Sunflower 'Sunrich Gold Summer'
(American Takii)
Good Qualities: Deep gold color with a nice golden and green center (9); Very sturdy neck, loved this sunflower; Great for market bouquets; Held its petals well; I really loved all of the sunflower Trial varieties this year, they were all perfect stems, easy germination, birds didn't seem to get to them like most of my other field varieties, perfect sized heads for design work; Sturdy and consistent growth; Bloomed within a few days from start to finish, our season was not as usual this year our suns were delayed in flowering, perhaps due to cool weather for most of July, all the suns were well over the typical days, typical excellent quality of the Sunrich series; Uniform, well-formed blooms, blooms quickly in late season for more chance of harvest (October 10!), our staff loved it; Slightly earlier than Sunrich; Small heads good for bouquet work;
Problems: Inconsistent bloom time, later bloom time, weaker stems than ProCut varieties; In Midwest must cut before open to prevent corn beetle damage; Took a full 70 days to begin blooming, and ten additional days before harvest was complete despite the Sunrich Summer series being meant to bloom in 50-60 days, this was, however, the first to bloom of all the Trial sunflowers; Must be double fenced; Customers at market didn't buy as readily as dark centers, some cucumber beetle damage; None; Nothing special about this, no difference from 'Sunrich Gold'.
Similar Cultivars: 'ProCut Gold Lite DMR'; 'Summer Gold'; 'Vincent Fresh'; All sunflowers...; 'ProCut Gold'.
Postharvest Recommendations: Postharvest included chlorine tablets for 4-5 days, then changed the water every 2 days; Hold with a cvb tablet in cooler, if cut at claw stage can hold up to 2 weeks; I use Chrysal CVBN tablets; We use FloraLife Fresh 300 upon harvest. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: Because this variety is so slow we would likely never grow it instead of ProCut varieties; Definitely adding this one to my sunflower growing list, spacing did not seem to increase head size, we spaced 10-12 inches apart and still got a good usable head size; There aren't many differences in this variety as I mentioned we did not have a typical growing season, as a result our entire sunflower production was delayed, we start all our suns in trays of 200 and hand-plant on 4-foot spacing, 6 plants wide, no irrigation, no mulch; Was still 1 week earlier than 'Sunrich Gold', even in early October; Flowers a little larger than 'ProCut Gold Lite DMR'; Yellow-centered suns are harder for me to sell than the dark-centered sunflowers.

'Sunrich Gold Summer'

Table 1. The first row of data for each cultivar is the average and the second row is the range of responses. Note when only one response is shown in the range line, all respondents gave the same rating.

Species Cultivar Company	Yield (stems/plant)	Stem length (in.)[1]	Market appreciation rating [2]	Ease of cultivation rating [2]	Grow again rating [2]	Average postharvest life (days)
Aster Nina Plus Purple American Takii	3.1 1-6	13.6 6-24	3.4 1-5	3.2 1-5	3.3 1-5	6.3 3-10
Cabbage Condor Red Sakata	1.0 1	29.6 12-50	4.3 2-5	3.8 1-5	3.8 1-5	9.8 7-14
Cabbage Condor White Sakata	1.0 1	30.4 18-50	4.5 2-5	3.9 1-5	4.0 2-5	9.8 7-14
Campanula Campana Deep Blue Imp. PanAmerican	1.2 1-2	11.6 4-18	3.2 1-5	2.6 1-5	2.9 1-4	13.5 12-14
Celosia Sunday Bright Pink PanAmerican	8.2 2-20	16.0 8-24	4.4 3-5	3.7 1-5	4.5 3-5	7.0 3-11
Celosia Sunday Orange Improved PanAmerican	8.7 1-20	16.8 6-24	4.3 4-5	4.3 2-5	4.8 4-5	7.0 3-10
Celosia Sunday Purple PanAmerican	8.3 1-20	15.3 8-24	4.4 3-5	3.8 1-5	4.5 2-5	5.7 3-7
Delphinium Delphine Dk. Blue Wt. Bee Syngenta/Goldsmith	1.6 1-4	16.4 8-19	3.7 3-5	2.2 2-3	2.0 1-3	7.0 7
Delphinium Delphine Rose White Bee Syngenta/Goldsmith	1.8 1-5	16.4 8-25	3.3 2-5	2.0 1-3	2.3 2-4	7.0 7
Digitalis Camelot Mix Syngenta/Goldsmith	3.4 1-12	17.5 12-24	4.6 4-5	4.3 2-5	3.8 4-5	8.3 7-11
Kale Flare Rose American Takii	1.0 1	28.9 15-54	3.8 1-5	3.1 1-5	4.3 1-5	10.5 7-14
Lavender Blue Scent Early Syngenta/Goldsmith	15.8 6-34	9.3 4-17	2.8 1-4	3.3 1-5	4.0 2-5	5.0 5
Lavender White Scent Early Syngenta/Goldsmith	14.0 6-34	9.9 4-17	3.6 1-5	3.2 1-5	4.0 2-5	5.0 5
Lisianthus Arena Purple American Takii	4.1 3-9	18.4 12-30	4.6 2-5	4.3 2-5	4.0 2-5	11.6 7-14
Lisianthus Arena White American Takii	3.8 1-8	17.6 12-28	4.9 4-5	3.9 3-5	3.7 2-5	12.1 7-14
Marigold Bali Gold AmeriSeed	3.6 1-10	14.6 4-25	3.1 1-5	2.3 1-5	4.8 4-5	8.9 5-12

Species Cultivar Company	Yield (stems/plant)	Stem length (in.)[1]	Market appreciation rating [2]	Ease of cultivation rating [2]	Grow again rating [2]	Average postharvest life (days)
Marigold Bindi Orange AmeriSeed	7.5 1-20	19.0 6-38	4.0 2-5	2.7 1-5	4.7 4-5	10.1 5-15
Marigold Coco Deep Orange Sakata	12.9 4-30	23.9 12-54	4.1 1-5	4.3 1-5	4.6 1-5	10.4 7-16
Marigold Coco Gold Sakata	11.6 1-30	29.1 12-54	4.0 1-5	4.1 1-5	4.5 1-5	10.1 5-14
Marigold Coco Yellow Sakata	11.3 1-30	22.8 12-45	4.6 3-5	3.9 1-5	4.8 4-5	12.6 5-25
Marigold Garuda Yellow AmeriSeed	9.6 1-30	19.9 12-30	3.0 1-5	3.3 1-5	4.7 4-5	11.7 6-20
Marigold Narai Orange AmeriSeed	8.5 1-30	20.1 8-36	3.7 1-5	3.1 1-5	4.6 4-5	9.2 7-12
Marigold Oriental Yellow AmeriSeed	11.8 1-30	24.3 12-41	3.7 1-5	3.5 1-5	4.6 4-5	12.3 5-23
Snapdragon Monaco Orange PanAmerican	4.1 1-10	26.3 12-36	4.6 4-5	4.5 3-5	4.5 3-5	8.8 7-12
Snapdragon Potomac Royal Improved PanAmerican	4.5 1-12	30.3 18-44	4.9 4-5	4.7 4-5	4.4 3-5	9.8 7-14
Snapdragon Potomac White Improved PanAmerican	4.2 1-25	27.4 18-36	4.7 4-5	4.6 4-5	4.4 3-5	8.1 7-10
Stock Katz Hi Double White PanAmerican	1.0 1	24.2 12-36	4.3 2-5	3.9 1-5	4.0 2-5	10.3 7-14
Sunflower ProCut Gold Lite DMR Sunflower Selections	1.6 1-9	41.1 24-60	4.3 3-5	4.1 1-5	4.8 4-5	10.0 8-13
Sunflower ProCut Horizon Sunflower Selections	1.0 1	45.8 24-60	5.0 5.0	4.8 4-5	4.9 4-5	10.0 10
Sunflower Sunrich Gold Summer American Takii	1.2 1-7	44.2 24-72	4.5 3-5	4.3 3-5	4.9 3-5	10.8 7-14

[1]Data shown are from the respondents who harvested stems. Some Trialers may have not harvested stems because they were too short. The stems, not the Trialers.
[2]1 to 5 scale with 5 being the best; market appreciation ratings are based on sales to wholesalers, retailers and/or final consumers.

2019 ASCFG Perennial Trial Report—First Year

John Dole, Nathan Jahnke, Ben Bergmann, and Judy Laushman

We love echinaceas and appreciate the parade of stunning new cultivars which appears every year. Not surprisingly, we had another one in the 2019 Perennial Trial, and it was a beauty. **Echinacea 'Coral Craze'** was top rated for its wonderful coral color that some called raspberry and others called orange. The petals were highlighted by the bright gold cone and dark burgundy stems. Plants produced about 3 sturdy stems per plant that averaged about 14 inches long. The finishing touch was a long vase life, averaging 11 days and ranging from 7 to 14 days. 'Coral Craze' is from Walters Gardens, as were all of the cultivars in the 2019 Trial.

Achillea 'Sassy Summer Sunset' continued the trend of ambiguous colors. One Trialer called it a "strong mustard yellow, some with orange petals" and another said "good dark orange". One just said "unique color", which was probably the safest way to describe the shade! Plants were productive, producing 8 stems/plant that averaged about 14 inches long, with a couple Trialers harvesting 24-inch stems. The other yarrow, **'Sassy Summer Sangria'**, had similar statistics, but with rose-pink flowers that aged to a vibrant red.

Of the two veronicas, **'Blue Skywalker'** was highest rated with purplish-blue flowers. Both it and **'Lavender Lightsaber'** produced 3-4 stems/plant that averaged 10-13 inches long in the first year.

The two kniphofias were similar in their statistics—around 3 stems/plant that averaged 12-13 inches long. **'Backdraft'** had a classic red hot poker look with reddish-orange buds that opened yellow, while **'Orange Blaze'** was a bright orange. Both cultivars were dinged for the typical kniphofia problem: lower florets turning brown before the spike is full.

Many growers have a love/hate relationship with grasses. Some love the airy botanical look, while others need something more substantial. Of the two cultivars in the Trial, ***Pennisetum*** **'Puppy Love'** performed the best, producing 19 stems/plant that averaged about 16 inches long. ***Panicum*** **'Apache Rose'** had much longer stems, but some Trialers preferred the more substantial heads on 'Puppy Love'.

The most unusual species in the Trial was the bush **clematis 'Stand by Me'** with its swept-back purplish blue petals. Most of us are familiar with clematis as a vine, but a number of species form mounds. The stems were on the short side this year, around 10 inches, but they will hopefully be longer next year. While the flowers of most clematis cultivars command the attention, many growers are equally interested in the seedheads. 'Stand by Me' also had seedheads but they were fairly small at this stage.

Participating Trialers

Rachael Ackerman
Blue Sky Farm
Lakeville, MN
Zone 4

Renee Clayton
Wild Scallions Farm
Timberlake, NC
Zone 7

Tanis Clifton
Happy Trails
Flower Farm
Dennis, MS
Zone 7b

Mackenze Burkhart
Michelle Elston
Roots Cut Flower Farm
Carlisle, PA
Zone 6

Nathan Jahnke
John Dole
NC State University
Raleigh, NC
Zone 7b

Jeanie McKewan
Brightflower Farm
Stockton, IL
Zone 5a

Rebecca Perry
Sabatia Flower Farm
West Barnstable, MA
Zone 6b

Participating Company

Walters Gardens
Zeeland, MI
www.WaltersGardens.com

'Stand by Me'

Finally, we had one phlox cultivar in the trial, **'Fashionably Early Flamingo'**. Several Trialers liked the plant, with one saying "I am keeping an eye on this one as a real keeper".

This is the first of a two-year trial. All cultivars flowered except for the two baptisias, which typically take at least two years. Stay tuned to *The Cut Flower Quarterly* for next year's report.

Based on the combined ratings score (market appreciation + repeat again + ease of cultivation), the following top-ranked cultivars will be nominated for the ASCFG Cut Flower of the Year: *Achillea* 'Sassy Summer Sunset', *Echinacea* 'Coral Craze', and *Veronica* 'Blue Skywalker'.

Interpreting the trial results: The numbers reported are averages of all the respondents. Many factors will affect the success of any cultivar. Our participants grow and harvest trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is narrow and high, i.e., 3-5 or 4-5, the plant was a winner for most of the respondents and is likely to do well for you. The 'Repeat Again Rating' is particularly important because it indicates if the Trialer would take the time, money, and space to actually grow the cultivar again. Review the Trial results carefully. If a variety sounds interesting, but did not appear to do well, try it anyway; it may work well for you.

Acknowledgments: Thank you to each of the seven evaluators who returned their Trial data! We very much appreciate the time it takes to participate in the ASCFG Trials. We want to especially thank Tanis Clifton for being the first Trialer to return her evaluations! Thank you to Walters Gardens for providing the plant materials. We would also like to thank Sydney Ruppert and Ingram McCall for assisting with the NCSU trials. In preparing the report we did a bit of editing of the comments for space and clarity; our apologies if we've altered the tone or content of anyone's comments.

Summary of Comments. Note: many respondents did not make specific comments on each cultivar and in a few cases, comments have been shortened because of limited space. The number in a parenthesis refers to the number of respondents who made the comment. If no number is present, only one person made the comment. Comments by each individual are separated with a semicolor (;).

***Achillea* 'Sassy Summer Sangria'**
Good Qualities: Vibrant red color (5); Great hot pink aging to an antique look, can be picked at either color stage; Strong straight stems; Lots of flowers; Lasted a long time, nice shape flower, sturdy stems; Large head size for first year production; Dried nicely; Easy to grow.
Problems: Stems rather short (4), I expect taller next year; Not highly productive (2); Stems were too branched; None that we have observed yet.
Notable Insects and Diseases: None (5).
Similar Cultivars: Any of the yarrows; We grow *Achillea* 'Moonshine', which we like; We had similar results from both the 'Sassy Summer Sangria' and 'Sassy Summer Sunset'; 'Paprika'?
Postharvest Recommendations: We use Chrysal Prof 2 and a Gerb tablet in all of our buckets; Did not use preservative, plain water only; After 4-5 days I changed to plain water every two days
Comments: Looking forward to seeing how much height we get next year, it was just too short to use this season (2); Color and reblooming of variety is desirable; We typically don't grow any *Achillea* besides 'Moonshine' (Yellow), because we find that colored varieties don't hold their color as well.

'Sassy Summer Sangria' and 'Sassy Summer Sunset'
Photo Rachael Ackerman

***Achillea* 'Sassy Summer Sunset'**
Good Qualities: Lovely mustard yellow (5), Great late summer color (2), some with orange petals; Strong stems (2); Easy to harvest (2); Rebloomed (2); The plants showed a decent tendency to send up new flowers stems in the fall after the main season in the early summer; Flower shape; Large heads for a first year perennial; Great height for the first season, I like the color better than the red, fit in well with our fall market bouquets, held in bouquets.
Problems: None (2), short and not highly productive.
Notable Insects and Diseases: None (5).
Similar Cultivars: Any of the yarrows; Achillea 'Moonshine'; 'Paprika'.
Postharvest Recommendations: We use Chrysal Prof 2 and a Gerb tablet in all of our buckets; Plain water, no preservative required; We cut when flowers were open but before too much pollen was showing and definitely before the color started to fade.
Comments: Glad to have had an opportunity to try these; We typically don't grow any *Achillea* besides 'Moonshine' (Yellow), because we find that colored varieties don't hold their color as well.

***Baptisia* 'Lemon Meringue' and 'Baptisia Pink Lemonade'**
Note: Plants did not flower in the first season, as is typical for baptisia. We will have flowering results in next year's report. Comments were the same for both cultivars.
Good Qualities: Plants had good first-year foliage growth and seemed to establish well.
Problems: None so far; Too short to harvest the first season, no blooms.
Notable Insects and Diseases: None (4); Caterpillars completely defoliated plants about mid-way through the summer.
Similar Cultivars: None listed.
Comments: Difficult time to be receiving plugs in general, lost most of these baptisia to stress due to lack of watering and just plain too busy to babysit them, many perennial plugs can handle the neglect, the baptisia were unable to; Too small for much info the first season, I can report back next year; The majority of the plants survived the season, hopefully, we will be able to draw some conclusions next season.

***Clematis* 'Stand By Me'**
Good Qualities: Lovely blue flower color (4); Cute, though rather small seedheads; Flowers were abundant; Nice size for bouquets, easy to work with compared to vining varieties; Interesting seed pods.
Problems: Flowers were downward facing (2); Short stems (first year growth may be the reason for the shortness) (2); Must be staked, short vase life, this flower was a beautiful color, however, it was very small, would probably be good for event work where vase life was not critical; First year growth was rather minimal; I think it needs to be staked, I didn't this first year and a lot of my stems were "L" shaped.
Notable Insects and Diseases: None (4); Groundhog nibbled off half the flower buds.
Similar Cultivars: None.
Postharvest Recommendations: Plain water; We harvested seedheads only and bunched them in 10's, stored in water and in cooler, also dried bundles as well; We use Chrysal Pro 2 and a Gerb tablet in all of our buckets, cooler set to 38 degrees.
Comments: Seems to have a lot of potential, I am hoping it grows more next year; Such an unexpected flower for a clematis, wish the flowers were more upright facing, we were unable to mix them in the mixed bunches we make, we will use it in clients' perennial gardens next year; Liked it, not a huge fan of the flowers, but liked the seedheads, will need to stake for next season.

***Echinacea* 'Coral Craze'**

Good Qualities: Glorious bright color (6) that makes summer bouquets glow; Wonderful vase life (2); Stems were very thick and strong (2); Heat and drought tolerant, Bright gold cone; Darker stems provided a nice contrast; We liked the flower shape, the petals of this variety are not hanging downward like often happens; Cones large; This was an eye-catcher in a bouquet.

Problems: Too short (3); None that I noted; Stems were branched; Each stem had a branching habit which made for 3 or more flowers per stem, which is not our favorite for our needs; Not productive enough to harvest more than a flower or two at a time; We had so much insect pressure that the petals were damaged; Maybe year 2 or 3 will produce longer stems.

Notable Insects and Diseases: None (4); Corn beetles (northern corn rootworm beetle) will attack the petals if the flower is left too long; Most of the echinacea in our field will get aster yellows, we did not notice any yet on this new planting, the Japanese beetles damaged the petals quite a bit.

Similar Cultivars: We grow many echinaceas; There are some very similar but we do not grow any other echinacea on the farm.

Postharvest Recommendations: We use Chrysal Prof 2 and a Gerb tablet in all our buckets; We did use Chrysal gerbera tabs and holding solution; We had so much insect pressure that the petals were damaged, we picked off petals and used cones in our bouquets one week, they would have lasted even longer if we would have used dried.

Comments: I wish I had a 50-foot row of this gorgeous echinacea; Many times echinaceas have pieces of the petals missing from wasps or insects which make them unusable, we were pleasantly surprised it did not happen with these; Not very many plants survived the season, and as stated above, not all bloomed; I loved using the cones in bouquets, it added a beautiful pop of gold and interesting texture.

'Coral Craze'

***Kniphofia* 'Backdraft'**

Good Qualities: Bright color (4); Heat and drought tolerant, bloomed in early summer and in fall; Long bloom time, very nice flowers; Unique structure; Sturdy stem, easy to harvest, rebloomed; Flower shape.

Problems: Short vase life; None noted, other than the old blooms need to be cleaned off if you don't cut within a few days of it being ready; Short, and also because of the way the flower matures the bottom petals are dead by the time the entire flower is mature; Not hardy to zone 4.

Notable Insects and Diseases: None (4).

Similar Cultivars: None listed.

Postharvest Recommendations: We use Chrysal Prof 2 and a Gerb tablet in all of our buckets; We harvested when florets were all colored and bottom florets were open, stems went into clean water and held in the cooler; Used plain water

Comments: We planted this in one of our houses since I was skeptical of it being hardy in my zone, we really enjoyed this plant as did our customers; This plant could possibly be useful in design work, but not likely bouquet production; I liked using them and wish they were a bit hardier, they are not in our Twin Cities market at all so I think people found them interesting and unique.

***Kniphofia* 'Orange Blaze'**

Good Qualities: Beautiful clear orange (6), with almost a hint of purple at the top; Sturdy straight stems (2); Heat and drought tolerant; Flower shape was desirable; Unique structure; Easy to harvest, rebloomed.

Problems: Bloomed very short (2), hopefully just because it is the first year; The way the flower matures the bottom petals are dead by the time the entire flower is mature; Not hardy to zone 4; Not as many blooms as 'Backdraft'.

Notable Insects and Diseases: None (4).

Similar Cultivars: None listed.

Postharvest Recommendations: Plain water; We harvested when florets were all colored and bottom florets were open, stems went into clean water and held in the cooler; We use Chrysal Prof 2 and a Gerb tablet in all of our buckets.

Comments: Color is difficult to use for our color palette; I liked using them and wish they were a bit hardier, they are not in our Twin Cities market at all so I think people found them interesting and unique; We planted this in one of our covered/heated spaces since I was skeptical about its hardiness in my zone.

'Backdraft'

'Apache Rose'

***Panicum* 'Apache Rose'**
Good Qualities: Long harvest window, nice color and sparkle for almost 2 months; Hard to say this first year, possibly a good color, just kind of wimpy; Loved the airiness and the blue green color when fresh, also loved that it dried without dropping seeds; Tinge of purple in the seedhead added an airy look, bunching grass, not invasive, easy to harvest and work with, nice addition for fall offerings
Problems: So far not very impressed, stems were not strong, not very tall, not a lot of bang for a buck; Seedheads are rather subtle and stems rather fine, but can harvest whole clumps at a time; None I can think of.
Notable Insects and Diseases: None (4).
Similar Cultivars: It reminds me a bit of 'Shenandoah'.
Postharvest Recommendations: We use Chrysal Prof 2 and a Gerb tablet in all of our buckets; Postharvest included Pro 2 for 4-5 days then changed to fresh water every 2 DAYS; I harvested when seedheads were fully mature and starting to color, grabbed in bunches and rubber banded and straight into clean water.
Comments: Not really impressed, overall weak plants the first year; Loved having it for fall, looking forward to getting more height on it.

***Pennisetum* 'Puppy Love'**
Good Qualities: Really heavy producer (5) of fuzzy grass seedheads; Nice variation in color in flowers, strong straight stems; Super easy to harvest; Refreshing structure, nice color, the plant was trying to re-grow mid-season, and might have produced a second cutting, which is impressive; This was a very erect grass, pretty fresh and dried; Out of all the trial perennials this was by far the one I was most surprised by, very impressive. It was awesome in our late-season market bouquets, it added a little bit of fall wisp without looking "weedy", I loved it.
Problems: None noted; Did not find anything particularly desirable about this cultivar; Seedheads fall apart late summer early fall; Stems were short, and never seemed to develop a nice color, always a mid brown, not very inspiring; The flower color and density of the grass plume are weak; Not hardy—that's my only complaint.
Notable Insects and Diseases: None (5); 3 plants were stunted for no apparent reason I could tell.
Similar Cultivars: Pennisetum rubrum; 'Little Bunny'? If I remember correctly that seedheads are lighter on that cultivar.
Postharvest Recommendations: We use Chrysal Pro 2 and a Gerb tablet in all of our buckets; Plain water; Postharvest included pro 2 for 4-5 days then changed to fresh water every 2 days; We used these in market bouquets, harvested when seed heads were mature and held in water until we made bouquets later that day. *NC State conducted vase life testing of this cultivar; see article in this issue for details.*
Comments: Not sure if this will overwinter, we are planning on mulching well with straw; We prefer a pennisetum which produces for a longer period of time and has a stronger color; Great for design work; Loved this, I would plant a large amount of them if they were hardy to zone 4.

'Puppy Love'
Photo Rachael Ackerman

***Phlox* 'Fashionably Early Flamingo'**
Good Qualities: No mildew noted (2); The florets held up in a vase better than most paniculatas I have had experience with, I also like the shape of the florets, almost saucer like and the petals are nicely rounded. I am keeping an eye on this one as a real keeper; Clean foliage, early bloom time; Large flowers and rebloomed; Nice soft cool pink, massive flower head where buds keep opening, giving each stem a rather long harvest window.
Problems: Stems were too short (4); Needed support (2); I wasn't a huge fan of the color— sorry! it wasn't popular with florists and it was a hard color to incorporate in our market bouquets; Flowers shatter easily; Extremely bright pink, could be difficult to pair with other flower colors; Not very productive.
Notable Insects and Diseases: No insect or disease problems noted (4).
Similar Cultivars: Lots of phlox on the market, Bailey's used to have a 'Candy' series, it reminds me a bit of that; Flower heads have a similar look to hydrangea; Flowers are similar shape to dianthus which is much easier to grow and produce more flowers.

Postharvest Recommendations: We harvested when buds were colored and just a couple florets had opened, into water and Chrysal #2; We use Chrysal Prof 2 and a Gerb tablet in all of our buckets.
Comments: Not bad for a phlox but it wasn't my favorite; Not a unique color, normal pink, nothing special, meh!; This cultivar may be way better next year; All the plants in the trial did very well for a year with continual heat waves and droughts, the generally severely dry weather likely helped prevent disease problems; The plants were not tough enough to survive our abuse upon arrival, we wish we had them earlier in the season, perhaps April, they might have benefited from natural rains and more time to monitor them, perhaps would have had a better survival rate.

***Veronica* 'Blue Skywalker'**
Good Qualities: Great purple blue color (4); I love all veronicas, so I am thrilled to add another to the farm; Clean foliage, strong stems; Lots of flowering stems; Bumblebees adored it; We love the shape of veronicas.
Problems: Stems too short (2); Not a unique color, nothing special, meh!; Short cutting time, no re-bloom; Flower stalk was usually longer than the stem itself making most stems not usable; Bloom was very short at the optimal time for harvest.
Notable Insects and Diseases: None (2); We were pleased not to have disease issues which we so often have with veronicas.
Similar Cultivars: *Veronicastrum*, but the veronica colors are more desirable.
Postharvest Recommendations: Plain water.
Comments: We hope the second year will produce longer stems (3).

***Veronica* 'Lavender Lightsaber'**
Good Qualities: Interesting pale lavender pink color (2), could be very useful for events, if grey bridesmaid dresses remain popular; Lots of flowering stems; Interesting structure for design work; Nice straight stem, no issues growing it.
Problems: Too short (4); Hopefully, will bloom taller next year (2); Inflorescence was longer than the stem making it hard to use; Not highly productive in its first year, lower petals tend to die before the whole flower is mature, light lavender color was less impressive than the 'Blue Skywalker'.
Notable Insects and Diseases: None (3).
Similar Cultivars: 'Royal Candles'? 'Icicle'? Those ones I have grown but they seem to get mildewy.
Postharvest Recommendations: None listed.
Comments: Maybe stems will be longer next year; Hoping for more height and no mildew next year.

NEW!
GAILLARDIA aristata 'Fire Wheels'
Exciting New Perennial Varieties from Seed
Jelitto
www.jelitto.com
STAUDENSAMEN · PERENNIAL SEEDS · GRAINES DE PLANTES VIVACES
Production · Breeding · Seed Technology
USA Office: 125 Chenoweth Ln. · Louisville, KY 40207
Phone (502) 895-08 07 · Fax (502) 895-39 34 · maryv@jelitto.com
German Headquarters: P. O. Box 1264 · D-29685 Schwarmstedt
Fax 01149-50 71-98 29-27 · www.jelitto.com · info@jelitto.com

Table 1. The first row of data for each cultivar is the average and the second row is the range of responses. Note when only one response is shown in the range line, all respondents gave the same rating.

Species Cultivar	Plant survival and flowering (%)	Yield (stems/plant)	Stem length (in.)[1]	Market appreciation rating [2]	Ease of cultivation rating [2]	Grow again rating [2]	Average postharvest life (days)
Achillea Sassy Summer Sangria	97 80-100	8.0 1-28	12.3 1-28	3.7 3-4	3.1 2-5	4.6 3-5	8.0 4-11
Achillea Sassy Summer Sunset	97 80-100	7.9 1-28	13.6 6-24	4.3 3-5	3.8 2-5	4.8 4-5	7.0 4-10
Baptisia Lemon Meringue	0	-	-	-	-	-	-
Baptisia Pink Lemonade	0	-	-	-	-	-	-
Clematis Stand by Me	99 95-100	5.5 2-10	10.4 6-12	3.0 2-4	2.4 1-4	3.8 2-5	5.4 2-10
Echinacea Coral Craze	92 60-100	3.3 1-6	13.6 5-17	4.5 3-5	4.1 2-5	4.7 4-5	11.4 7-14
Kniphofia Backdraft	97 80-100	3.6 1-10	13.7 10-24	3.8 3-5	2.8 1-5	4.8 4-5	5.7 3-7
Kniphofia Orange Blaze	93 80-100	2.4 1-5	12.8 9-24	3.5 3-4	2.7 1-4	4.8 4-5	5.3 3-7
Panicum Apache Rose	100 100	7.9 1-20	23.9 15-36	3.7 2-5	3.6 2-5	4.6 4-5	10.9 7-14
Pennisetum Puppy Love	93 75-100	19.4 3-50	16.0 9-24	3.3 2-5	4.0 1-5	4.9 4-5	11.5 7-17
Phlox Fashionably Early Flamingo	80 50-100	1.7 1-4	13.2 6-24	3.3 3-4	2.8 1-4	4.0 3-5	7.0 3-10
Veronica Blue Skywalker	100 100	3.0 1-7	12.9 6-24	3.7 2-4	4.2 3-5	5.0 5	7.4 7-10
Veronica Lavender Lightsaber	96 80-100	3.8 1-7	9.9 8-15	2.5 2-3	3.8 3-5	4.5 4-5	7.0 7

[1]Data shown are from the respondents who harvested stems. Some Trialers may have not harvested stems because they were too short.

[2]1 to 5 scale with 5 being the best; market appreciation ratings are based on sales to wholesalers, retailers and/or final consumers.

ROOTED
FARMERS

An Easy New Approach To:

Sales • Availability Lists • Inventory Management
Relationship Management • Order Fulfillment

Make selling easy. Try our platform at:
www.rootedfarmers.com/ascfg

Discounted pricing for all ASCFG Members

2019 ASCFG Hardy Eucalyptus Trial Report

John Dole, Nathan Jahnke, Ben Bergmann, and Judy Laushman

'Funky Monkey'

With its silvery leaves and distinctive fragrance, eucalyptus has long been a favorite of floral designers and bouquet makers. While most cut eucalyptus comes from tropical or semi-tropical environments, its popularity has led many temperate zone growers to produce fast-growing cultivars outdoors or in high tunnels. The desire to provide locally-grown eucalyptus prompted the ASCFG to conduct a cold-hardy eucalyptus trial in 2019, with the cooperation of Southern Eucs, a company that specializes in cold-hardy eucalyptus. While the program got off to a bit of a rocky start with shipping problems in the spring, we already have some results. All Trialers are growing them in the field, so we should have a good indication of cold hardiness next year.

At this point in the multi-year trial, 'Funky Monkey', with its small green leaves on reddish stems, appears to be the favorite. The foliage is variable, with some leaves more pointed than others, and some plants had a "very lovely purplish coloring". In this first year, Trialers were already getting an average of 5.3 stems, averaging 13 inches long, per plant, with responses ranging from 9 to 20 inches. Vase life is excellent, with one Trialer reporting 2+ weeks and another 10-14 days.

Next is 'Cab Sav', which produced four stems per plant, ranging in length from 10 to 15 inches. This well-branched cultivar bears dusky green leaves.

'Big O' is a well-named cultivar with large silvery leaves. It was also by far the fastest-growing cultivar in the Trial. Not surprisingly, it had the longest stem length, 14.5 inches, with an average of 4.5 stems per plant. One Trialer reported a 14-day vase life.

The most refined foliage was found on 'Angus', which had a multitude of long, narrow leaves. One Trialer reported trouble getting it to hydrate, but another noted that it had a 2+ week vase life. Trialers harvested an average of 3.9 stems per plant, which ranged in length from 10 to 18 inches.

Finishing the list is 'Sheila' with medium-sized, slightly elongated leaves. Trialers reported harvesting about 2 stems per plant that were 10 to 13 inches long.

Of the five cultivars, based on the combined ratings score (market appreciation + repeat again + ease of cultivation), the top-ranked cultivars were 'Big O', 'Cab Sav', and 'Funky Monkey'. These cultivars will be nominated for the ASCFG Cut Flower of the Year.

Interpreting the Trial results: The numbers reported are averages of all the respondents. Many factors will affect the success of any cultivar. Our participants grow and harvest trial plants using several methods. After looking at the average, check the range of responses listed below each number to see how the cultivar performed at its best and its worst. If the range of responses in the ratings is narrow and high, e.g. 3-5 or 4-5, the plant was a winner for most of the respondents and is likely to do well for you. The "Repeat Again Rating" is particularly important because it indicates if the Trialer would take the time, money, and space to actually grow the cultivar again. Review the trial results carefully. If a variety sounds interesting, but did not appear to do well, try it anyway—it may work well for you.

Acknowledgments: Thank you to each of the four evaluators who returned their Trial reports! We very much appreciate the time it takes to completely and competently participate in the ASCFG Trial Program. We want to especially thank Jamie Rohda for being the first Trialer to return her evaluations! Thank you to Southern Eucs for providing the plant materials. We also thank Sydney Ruppert and Ingram McCall for assisting with the NCSU trials. In preparing the report we did a bit of editing of the comments for space and clarity; our apologies if we've altered the tone or content of anyone's comments.

Summary of Comments. Note: many respondents did not make specific comments on each cultivar and in a few cases, comments have been shortened because of limited space. The number in a parenthesis refers to the number of respondents who made the comment. If no number is present, only one person made the comment. Comments by each individual are separated with a semicolor (;).

***Eucalyptus nicholii* 'Angus'**
Good Qualities: Loved the fine texture and slightly reddish stems; Unique structure; I love this cultivar! It is my favorite! I have florists begging for more of it already, love how it is so light, customers would argue that it is too delicate to be a eucalyptus.
Problems: Slower growth rate; Very small plant; Trouble hydrating; I hope the stems will be longer next year.
Similar Cultivars: None (2).
Comments: I truly think this is the best of the cultivars that I am growing; Because of the poor condition of these plants when shipped to us there was only one of this variety that survived to be planted out; Only one plant survived because they all were challenged from the start, this one did not grow very tall, we had high hopes because the leaves are so cool.

Participating Company

Southern Eucs
southerneucs.com

Participating Trialers

Nathan Jahnke/John Dole
NC State University
Raleigh, NC
Zone 7b

Barbara Lamborne
Greenstone Fields
Purcellville, VA
Zone 7a

Mary Royal
The Royal Gardens
Elko, GA
Zone 8a

Jamie Rohda
Harvest Home Flowers
Waverly, NE
Zone 5

'Angus'

'Big O'

***Eucalyptus neglecta* 'Big O'**
Good Qualities: Blue-green color, sturdy stems, fastest growth rate of the varieties; Huge! I liked the color after a frost; Large leaves, great vase life, customers love it; Size, great for large arrangements, really like how the longest branches have started to make a huge fan shape, love this! have not sold any of the fans yet.
Problems: NA; Maybe too big?
Similar Cultivars: No.
Comments: A very nice addition to the 'Silver Drop' eucalyptus we grow in abundance; We received these plants in very poor condition and only one of this variety survived to be planted outside.

***Eucalyptus rubida* 'Cab Sav'**
Good Qualities: Dusty grey with reddish stems; Stem length and size of leaf are excellent, branching is also good, many customers are looking for a similarly-sized cultivar.
Problems: Very branched stems, 5 of the 6 plants I received died in the first week after I received them.
Similar Cultivars: 'Silver Drop'.
Comments: Of the six plants I received in May, only one survived to be planted, they died within a week of arrival, this did not seem to affect any of the other cultivars, the one surviving plant has done very well, but I have not harvested as many stems, want to protect what I have, I would love to have more!

***Eucalyptus parvula* 'Funky Monkey'**
Good Qualities: Beautiful coloring on one of them; Smaller green leaves with reddish stems; Sturdy stems, customers loved the small leaves; Love the small leaves and the branching on this cultivar, of course everyone loves the name as well, this size is useful for all types of arrangements.
Problems: Very branched stems; None; Plants are still fairly small.
Similar Cultivars: 'Silver Drop'; No.
Comments: This cultivar is also one of my favorites! I have cut quite a few stems and they seem to grow back quickly, I hope the plants get larger next year; This variety was sturdy, came back well after a rough start; One variety had a very lovely purplish coloring to it that I loved, so far they also appear to be more frost tolerant then the 'Silver Drop' that we grow.

***Eucalyptus stellulata* 'Sheila'**
Good Qualities: Olive color and teardrop-shaped leaves; I like the size of the stems and leaves on this cultivar. Useful for average size arrangements and wreaths.
Problems: Slowest growth rate of all the cultivars; The leaves all have spots on them, I think it is probably a fungus, I see no signs of insects, I did use overhead watering while the plants were in pots, once they were put in the ground, I used drip irrigation, I am hoping that next year's plants will look better, I did not treat the plants with any fungicide.
Similar Cultivars: Not to my knowledge.
Comments: I really hope my next year's crop is better.

'Cab Sav'

Table 1. The first row of data for each cultivar is the average and the second row is the range of responses. Note when only one response is shown in the range line, all respondents gave the same rating.

Species Cultivar	Plant survival at fall (%)	Yield (stems/plant)	Stem length (in.)[1]	Market appreciation rating [2]	Ease of cultivation rating [2]	Grow again rating [2]
Angus	88 50-100	3.9 2-8	12.7 10-18	3.0 1-5	4.3 3-5	2.8 1-5
Big O	100 100	4.5 2-9	14.5 14-15	4.5 4-5	4.5 4-5	4.3 3-5
Cab Sav	100 100	4.0 4	12.5 10-15	5.0 5	4.5 4-5	4.5 4-5
Funky Monkey	100 100	5.3 2-8	12.7 9-20	5.0 5	4.8 4-8	4.5 3-5
Sheila	63 25-100	2.0 2	11.3 10-13	2.0 2	2.5 2-3	2.5 2-3

[1]Data shown are from the respondents who harvested stems. Some Trialers may have not harvested stems because they were too short. The stems, not the Trialers.
[2]1 to 5 scale with 5 being the best; market appreciation ratings are based on sales to wholesalers, retailers and/or final consumers

AmeriSeed—Cut Flower Marigold Breeders, and More

AmeriSeed

Who is AmeriSeed?

Established 35 years ago, AmeriSeed is a specialist flower seed breeding company, with offices and research facilities in America, Thailand, and Vietnam. Seed is produced in seven locations worldwide, employing 160 people with seed sales to twenty-eight countries.

What Does AmeriSeed Do?

AmeriSeed is the leading breeder of hybrid marigolds (*Tagetes erecta*) with more than 40 varieties. Tall cut flower types are used in Asia, South and Central America, and the U.S. Medium-sized landscape, bedding, and naturally dwarf pot varieties are produced. AmeriSeed also has specialist breeding programs in vinca, zinnia, torenia, petunia, and tropical lettuce. Breeding is done in hot and humid climates to develop heat, humidity, and disease resistance. We have a team of five dedicated flower seed breeders and two biotechnology experts. The breeding and research team can be contacted at research@ameriseed.net

Hybrid Cut Flower Marigold Varieties

Eighty percent of AmeriSeed's breeding and seed production work is focused on marigolds. Major markets for our cut flower marigold seeds are India, Vietnam, Thailand, Indonesia, South and Central America, and the U.S. Flowers are used for different religions including Christian, Catholic, Buddhist, and Hindu, as well as in bouquets and vase decorations. Breeding is specific to each markets and use.

AmeriSeed F1 Marigold Varieties

Cut flower
Chedi (Jedi) Orange, Yellow, Gold
Mayan Orange

Bindi Orange
Oriental Yellow, Gold, Deep Gold.
Narai Orange, Yellow, Creamy Yellow
Garuda Yellow, Deep Gold

Medium tall to semi-dwarf
Bali Orange, Yellow, Gold
Big Duck Orange, Yellow, Gold
Dwarf varieties
Little Duck Orange

Future releases
Little Duck Gold—dwarf
Chedi (Jedi) White—cut flower
Giant Duck—cut flower

Seed Form and Quality

All seed is “clipped”, often referred to as detailed or bobtailed; tails are partially clipped or removed to aid machine packing and sowing. In the future polymer-coated seed will be offered for ease of handling.

AAS and Other Trials Organizations

AmeriSeed supports the work of All-America Selections and is proud to have received its national and regional awards, as well as recognition from Colorado State, Minnesota, and Fleuroselect.

Seed Samples

AmeriSeed is happy to send sample packs of cut flower marigolds to any ASCFG member for testing. Please send requests to lerma@ameriseed.net

Future Cut Flower Screening Selection and Breeding

The world is becoming a hotter place as climates change measurably. AmeriSeed wants to choose, screen, re-select, and improve open-pollinated cut flower varieties. We are starting a screening and selection process at the Trials Farm in northern Thailand. We will be selecting for heat, humidity, and disease resistance so we can breed and improve and in some cases hybridize varieties of cut flowers for world markets.

AmeriSeed needs help and advice from ASCFG members as to which varieties we should start working on. Some varieties are in mind include aster, celosia, delphinium, gaillardia, gomphrena, larkspur, sunflower, and Zinnia. We welcome your suggestions at clive@ameriseed.net

American Office Location

AmeriSeed’s U.S. office is in Lompoc, California, an area which is still climatically perfect for marigold seed production. Inventory of all marigolds is in Lompoc and can be shipped to growers within two days of receipt of order. Please let Lerma Buenaventura know your requirements at (805) 878-8338 or lerma@ameriseed.net

Marigold F1 Mayan Orange

- Firm, compact and ball-shaped flower
- An excellent cut flower variety for vase bouquet decoration.
- Long stem and continuously flowering
- Heat and disease tolerant

Marigold F1 Chedi Orange (EX Jedi)

Chedi was bred and produced under tropical conditions and is an excellent cut flower variety for Vase and bouquet decoration and the Day of the Dead.

This series comes in 3 different colors; orange, yellow and gold. The blossoms are large and firm and have a very long shelf life. This marigold grows vigorously creating a well-branched plant with long stems and deep green foliage. Chedi is tolerant to soil borne diseases including fusarium.

It has an excellent adaptability to a wide range of climates.

Marigold F1 Chedi Orange (EX Jedi)

AmeriSeed

AmeriSeed, Inc. 3877 Via Parte, Lompoc, California 93436
(805) 2878 8338 www.ameriseed.net

lerma@ameriseed.net	U.S. Operations
beam.ss@ameriseed.net	Marketing
research@ameriseed.net	Technical advice
clive@ameriseed.net	Group President

Allium schoenoprasum
Ornamental One Series
Jelitto Perennial Seeds has focused on multiple use plants—edibles with ornamental qualities. With *Allium schoenoprasum* we have developed clear, distinct colors, and consistently sturdy medium-sized foliage. Introducing the Ornamental One chive series! 'Pink One', 'Purple One', and 'White One' flowering plants are available for the first time in single color seed strains. First-year flowering, deliciously edible, and highly ornamental, all three colors are uniform in height and flowering time, with good sturdy leaf blades. Height with flowers is about 12 inches.

***Gaillardia aristata* 'Fire Wheels'**
From a chance seedling found decades ago in the Jelitto production fields of the popular gaillardia 'Kobold', comes the roots of the fancy frenzy of 'Fire Wheels'. Flowers with cool tubular petals in yellow and red are available in a hardy, vigorous, consistent, and easy to grow seed strain. Grows to about 14 inches tall and is first year flowering from seed

Verbena officinalis var. grandiflora
'Brampton'
Growing about two feet tall, this richly branched plant with purple-tinged foliage and little pink flowers is widely adaptable. Blooming July through September, verbena 'Brampton' is a delicate filler plant ideal for summer bouquets. Grows in zones 4-9.

***Asclepias asperula,* antelope horn milkweed**
Native to the mountains and southwestern U.S. Likes sandy or rocky prairie-type soils best. Growing to be about 16 inches tall as a plant, stems can be cut to the base. The seed is easy to germinate and being first-year flowering there will be a crop, although with any perennial plant the subsequent years will yield the real gold. Needs full sun and good drainage. Food source for monarchs and other pollinators. Central and West Coast U.S. members will know of it as their native milkweed. Blooms April-August, grows in zones 3-9.

ProCut®Gold Lite DMR

SunflowerSelections.com introduces ProCut®Gold Lite DMR to the Pro-Cut® lineup in 2020. ProCut®Gold Lite has an erect flower with intense, overlapping, roundish, golden petals surrounding a green center disk. This variety consistently produces a high number of economically useful plants with uniform appearance. It is ideal for mixed bouquets or in combination with our traditional ProCut®Horizon. ProCut®Gold Lite DMR is resistant to the prevalent races of downy mildew. It flowers in about 50-55 days in most growing zones. It is a single stem plant about 48-60 inches height.

SunflowerSelections.com™
QUALITY SEEDS FOR PERFECT FLOWERS
ORDER ONLINE
NOW FOR 2020
SunflowerSelections.com™ has added ProCut®Gold Lite DMR for 2020. Our breeders are at the forefront in cut sunflower innovation offering more than 50 sunflower choices. SunflowerSelections.com is dedicated to creating new sunflower growing experiences.
Visit us today.

NORTHEAST

Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont

Bailey Hale
Ardelia Farm & Co.
ardeliafarm@gmail.com

Greetings from snowy Vermont!

I am pleased to be starting my term as the new Northeast Regional Director. I have been a gleeful and active member of the ASCFG since 2014, and you all have taught me so very much that frankly it's my duty to return that favor! I do have a side hustle selling cut flower plugs, but that's not the Bailey that you will hear from in these columns, or the Bailey talking your ear off at meetings. I am here as Bailey the cut flower farmer, trying to figure things out one year to the next, just like you.

Our farm, Ardelia Farm & Co., sits in a zone 3 frost pocket in Vermont's picturesque Northeast Kingdom. We are very close to the border of Quebec, and frankly very far from people with money or anyone who buys appreciable numbers of cut flowers. Our climate and our local demographic have shaped our business. After trying on several business models for size, we now grow entirely cool season annuals (primarily sweet peas) and perennials, and ship them to East Coast wholesalers, as well as to a couple of wedding designers. We have learned that there are no guarantees in this business, and trying to emulate someone else's business model or crop plan will likely not work in your particular climate or with your particular demographic. I think this is great news! We all have a niche to fill and it is our job individually to become experts of our farms, our climate, our crops, and our markets. While there is much to be said for improving our marketing, business, and design skills, my focus is growing good flowers. If you can consistently produce the highest quality flowers you will find a market.

I love tulips and can't imagine a spring without them, but they're not for sale anymore. They're for me, and that feels good. We don't all have to sell everything, and we don't all have to grow everything. "No" can be liberating.

So much of what we do as growers is respond to what goes wrong, to be constantly trying to fix things. After a few years of being that kind of reactive grower, I have gotten better at foreseeing what may go wrong and preventing the problem before it happens. 2019 slapped us in the face with a cold reminder that we will never have it ALL under control. While sipping wine in Portugal one February evening (we firmly believe in vacation) we got a call that our newest 30' x 160' high tunnel had collapsed under heavy snow and ice. We had not grown a single flower in it. As if that weren't enough, we had to ask an employee to cut the plastic off the rest of our big tunnels to prevent their collapse as well. The loss of the growing space sent our season into a tailspin before it even began. With our last frost occurring around June 5 and first frost coming just 90 days later, we rely heavily on our covered growing space.

Since it's too cold to grow all winter here, even in a tunnel, we came up with a plan to cover the tops of our high tunnels separately from the sides so that we could roll up the roofs around Halloween, and then roll them back down in March. This would let the snow and rain fall onto the ground, reducing salt buildup. It would also allow our -35 degree lows to kill off any vulnerable pests. Most importantly, going topless would allow us to sleep easy, knowing collapse wasn't going to happen again. While I was away at the Nashville meeting our crew got the tops rolled up to the peak and firmly tied into place for winter. For those with heavy snow loads, this may be an option to consider. I will share more about our technique once we have the tunnels re-covered in spring. For now I'm sleeping soundly. Very soundly indeed.

My other big lesson from the 2019 season is that it's okay to say no. We stopped doing weddings (of all kinds, even "bulk" bucket brides) and the reduction in stress and increase in time has allowed us to focus on our sweet pea production. We brought in far more money from those sweet peas than we ever made doing weddings with far fewer emails, negotiations, or complicated installation. My for-profit design days are over and it feels liberating to admit that.

We've also started saying no to more and more crops. Every year we plant a big tulip crop and every year something goes wrong. Poor drainage, diseased bulbs, mislabeled bulbs, extreme freezes, and lukewarm sales have all taken their toll on our bottom line. So tulips are off the list, and have moved into the realm of

the garden. I love tulips and can't imagine a spring without them, but they're not for sale anymore. They're for me, and that feels good. We don't all have to sell everything, and we don't all have to grow everything. "No" can be liberating.

I will be planning a meet-up of some sort on our farm in 2020, so keep an eye on the Facebook group. We are growing around 30,000 sweet peas this season, and the smell alone will be worth the trip. I am excited to meet more of my Northeast and Canadian neighbors. And if you haven't started your sweet peas yet, get on it! They prefer a cold and slow start to life.

MID-ATLANTIC

Delaware, Maryland, New Jersey, Pennsylvania, Virginia, and West Virginia

Lisa Ziegler
The Gardener's Workshop
lisa@shoptgw.com

I could be partial, but I think that Nashville was one of our best meetings yet! It was a combination of things, much like a perfect storm. First and foremost the ASCFG office folks, a.k.a Judy Laushman and Linda Twining, have created a well-oiled meeting machine. When I arrived on the scene, Judy had a team of board members welcoming members and getting them checked in and the merchandise tables were manned by, guess who? More board members. This allowed Judy to tend to all the other details that were coming to life and needing attention.

As I went in to find a seat upstairs in the loft section of this venue barn to drop my bags, I stood up above this amazing room and just took it all in. I caught a glimpse of Linda working with the AV people getting her ASCFG video recording devices setup and the slide show projectors ready to roll for the presentations. Then members started flooding in, doing exactly what I was doing, stopping and looking up and around and then seeking the best seat in the house, because they all seemed that way. I ventured back downstairs just in time for coffee and food to come out. Delicious. I grabbed a cup and watched. The merchandise tables had members trying on sweatshirts checking for the size to order, and the book table was buzzing with members grabbing the last copies on site.

Then they started, the programs. Be sure and watch each one because they were "dead on" as one first-time attendee told me. That perfect storm I mentioned earlier did really happen.

I believe that it takes three ingredients to succeed: people, process, and product. We have such a strong team of folks guiding the ASCFG and they have succeeded in creating processes that allow this organization to grow and thrive. The product part is the icing on the cake, being an educational organization allows us all to continue to learn and expand our horizons with no end in sight. Don't miss out next time—register early.

Smiling for the camera in Nashville

SOUTHEAST

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee

Val Schirmer
Three Toads Farm
vschirmer3@gmail.com

Joining forces in the Southeast Region—a sampling of who's doing it

Just about every time I talk with fellow ASCFG members it comes up: there's SO MUCH interest in doing more informal meet-ups and creating more networking opportunities. Sometimes it's purely to get to know fellow flower farmers and farmer-florists, visit each other's farms, and talk about what's working. And sometimes it's about the possibility of joining forces to create some kind of co-op.

I thought there was a fair amount of this already going on in our Region but needed to get more information to share it in this column. To find out, I sent an email to all of our Southeast Region members, asking:

- Please let me know if you've participated in a co-op and/or any kind of local flower group meeting in 2019 (beyond our ASCFG grower meetings).
- If so when and where was it, and who's in charge (if you know).
- If you have photos, please send them!

Almost everyone who responded didn't know of any group meetings in their area, but they all said they'd love to be involved in local meet-ups. I also found there's a MUCH higher level of interest in how to start co-ops than I had even thought.

A big part of my job as Regional Director is to help share information, best practices, and learning across the region and within the ASCFG organization, so I hope this article is a small start in that direction. The information below is based on the feedback I got, so if you know of more things going on that I haven't included, please drop me a note and I'll add it to the list.

In no particular order:

Anne Phythyon of Franklin Flower Farm in Franklin, North Carolina wants to start a regional flower co-op in her area (2 hours north of Atlanta, and an hour and a half west of Asheville) to cater to the Highlands/Cashiers/Western North Carolina area.

Karen Yasui of Petalland Flower and Herb Farm in Tullahoma, Tennessee is a member of the Tennessee Cut Flower Collective (www.tncutflowercollective.com), which she says has been working for the past five years to form a co-op marketing group. Due to the hurdles the group kept facing, Misty and Andrew Moman of Twin Rose Farm in Murfreesboro decided to develop the collective themselves. The Tennessee Cut Flower Collective is now a wholesale and retail flower company offering collectively-grown flowers and foliage from its participating flower farmers. Its goal is to create accessibility to local, often organic and sustainably-grown flowers, to build the local floral industry in Middle Tennessee and surrounding areas. The group did a soft opening this past spring and plans to sell at the Nashville Farmers Market in March 2020, and will also have a retail location at the same time.

Jodi McCord of Great Blue Farms and Garden in Webster, North Carolina is "super interested" in getting a co-op started in her area.

Laura Mewbourn of Feast and Flora Farm in Meggett, South Carolina is a co-founder and board member of Lowcountry Flower Growers (www.lowcountryflowergrowers.org), a 501 (c) (3) focusing on education and support for local and regional commercial flower growers. She says they started off as something similar to a co-op but that it didn't last. The group's mission has always been focused on education, both in terms of educating both the public and florists about locally-grown flowers, and educating its members on the unique challenges and opportunities of growing in a southern climate. The group hosts events for American Flowers Week, most notably its "Bloom Battle" featuring floral design with locally-grown flowers. They also hosted their first Southern Flower Symposium last year, which drew farmers from all across the South. They plan to host the Symposium again this winter.

Low Country Flower Growers spreads the word about locally-grown flowers during American Flowers Week with "Bloom Battle" events.

WNC Flower Farmers members (from left) Loretta Ball of The Neverending Flower Farm, Niki Irving of Flourish Flower Farm, and Emily Copus of Carolina Flowers.

"Monroe Blooms" became Georgia's first-ever flower festival, held in the historic town of Monroe. Spearheaded by Gail Zorn of Daybreak Farm and Stephanie Kilroe of Dancing Hearts Homestead, the town came alive during the all-day festival.

Members of George Local Flowers also held a Fall Festival to promote local flowers.

Emily Copus of Carolina Flowers in Marshall, North Carolina is founder (my words) of WNC Flower Farmers (www.wncflowers.com) an informal wholesale flower group started about three years ago that holds one or two meetings a year. Emily also runs an informal co-op that sells wholesale flowers to Mayesh Charlotte to help small farms gain business they couldn't get on their own, primarily selling dahlias. She says the administrative work around these ventures is intense, and "in order to make a business case for it, you have to want to make a business case for it."

Georgia growers **Lacy Armstrong of Clay & Ice Farm in Watkinsville; Lori Huster of Broad River Flower Farm, Decatur; and Wendy Mason of Madison Flower Company, Madison**, are members of Georgia Local Flowers (www.georgialocalflowers.org), an informal cooperative organization of locally-grown flower farms in northeast Georgia. The group is dedicated to providing florists with the freshest flowers for design and event work. Gail Zorn of Daybreak Farm in Loganville created and mentors the group, which meets quarterly at each other's farms, pools their flowers for florist routes throughout the week, and sells through farmers' markets. Gail and Stephanie Kilroe of Dancing Hearts Homestead in Monroe organized "Monroe Blooms," Georgia's first-ever flower festival. It was held this past June in the historic town of Monroe. The all-day festival included flower activities of all kinds: floral and art-in-bloom design competitions, flower jewelry classes, a variety of workshops, farmers' market demos, and flower installations in and around downtown Monroe. The festival rallied downtown businesses, garden clubs, master gardeners, and the public together and is expected to become an annual event.

Martha Mason of Bloomin' Idiots Flower Farm in Northport, Alabama says networking with ASCFG members (through Facebook live and the ASCFG members-only Facebook site) has turned the farm around and "in many ways has allowed us to stay in business." Martha and her flower partner, Sherry King, are a great example of what good will come when growers take it upon themselves to reach out to other members and network both electronically and by visiting other members' flower farms.

Alexis Sheffield of Wild Roots in Harrodsburg, Kentucky put together a flower farmer and florist meet-up this past August at a historic wedding venue that also co-hosted the event. Included on the agenda was a local photographer who showed the group how to take great photos of their flowers and events for social media and websites—a nice perk for attendees.

Sarah and Charles Brudecki of Sarah's Spice & Posies in Knoxville, Tennessee, organized a meet-up of flower farmers in east Tennessee last November, inviting all ASCFG members and flower farmers within a 100-mile radius of Knoxville. (Yes, your Regional Director can share a spreadsheet of regional ASCFG members for events like this.) Sarah says her goal was to host "a gathering of like-minded folks to discuss good ideas and hopefully help some people improve their processes." The first meeting was intended purely as a meet-and-greet and to gauge interest in working together on a cooperative of some kind.

As I said, this is likely just the tip of the iceberg, but I hope this sampling of some of the networking and cooperative efforts going on in our region will spark MORE grower-led meet ups and—who knows?—#localflowers co-ops!

Informal meet ups — such as this one organized by Alexis Sheffield — make a great "meet and greet" with local flower farmers and florists.

NORTH AND CENTRAL

Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming

Jamie Rohda
Harvest Home
harvesthomeflowers@gmail.com

Another season and another year have slipped past us, and once again we're looking at a fresh start, a clean slate, a weed-free garden, and another chance to do it all "right". Each year, as I tuck yet another growing season under my belt, I feel like I get just a little closer to that perfect season where everything goes just as planned.

All the succession plantings go in at just the right time, and I'm able to guess just what colors my customers want. It's such an elusive goal, though. Just when I think I've got my planting schedule perfected, the never-ending spring rains come to mess with the plan. When I feel like I've got all of the best colors selected for the season someone on the throne at Pantone decides to throw me a curveball. I think it's what keeps flower farming exciting and challenging—the perpetual quest for perfection or at least something close to it. It's kind of like the proverbial carrot dangling in front of the donkey's nose, only this time it's the perfect dahlia in front of the flower farmer's face! It's what keeps us saying "next year". It's what keeps us trying new things and what keeps us coming back for more every season.

This past fall I sent out a request to the growers in my Region asking them what they were most excited about during their 2019 season. That could be defined as being the most profitable, the most beautiful, the best customer response, or just something new to them. Not surprisingly, lisianthus, ranunculus, and dahlias were the most often mentioned. Melissa Van Zeeland from Wisconsin noted that lisianthus were most exciting for her because she started her own from seed, while Carole Caplan, from Michigan, felt they were the most profitable crop for her even with purchasing plugs. Melissa felt the plants that she started were taller, healthier, and produced more than purchased plugs.

Dahlias are always a darling, and Fay Doyle of Michigan noted that her florists and brides especially liked the ball types. She was also a huge fan of 'Diva'.

For straight profitability, lisianthus, dahlias, ranunculus, zinnias, succulents, amaranth, eucalyptus, and aronia berry were all cited. For Merry Hanson and her husband Shane, aronias are the only crop they currently grow, and with 10 acres of it in production it stands to reason that it would be the most profitable!

Beautiful lisianthus grown by Jennifer Kinney, Illinois.

Dahlia 'Diva' was a huge hit with Faye Doyle this past season.

A beautiful dried floral wreath from Sunny Meadows Flower Farm, Ohio.

While dahlias, lisianthus, and ranunculus are always their best sellers, Gretel and Steve Adams from Ohio are experiencing good customer response to their dried floral wreaths, a nice reward for all the hard work put into drying flowers over the summer months.

Lori Hernandez of Michigan noted that "dahlia fever" is strong in their area and it was all they could do to keep their farm stand stocked with their beautiful blooms!

For something new or exciting, scented geraniums, hyacinth bean, lisianthus, zinnias, tulips, ranunculus, anemones, heirloom mums, godetia, bells of Ireland, honey locust trees, mountain mint, and succulents were all cited.

Every year I think that succulents have run their course and may not be as popular, but our customers are still asking for them, and Jennifer Kinney is still finding them to be popular in her area.

Angela Van Order of Michigan was really excited about her heirloom mums.

Ashley Ballance, a new grower from Montana, was thrilled to learn that not only could she grow zinnias successfully in her short season but that people would happily pay for them!

White and red sorghum, Jamie Rohda

For us here at Harvest Home Flowers we were especially happy with the white and red sorghum we grew this year. Our customers were delighted with it and asked for more. We'll be trying to meet that demand in 2020!

What new flower will you try this year?

A stunning bundle of dahlias, Lori Hernandez, Michigan.

Hyacinth beans were a new favorite this year for Kathleen Johnson of Iowa.

A novel use of succulents for wedding decor by Jennifer Kinney, Illinois.

Heirloom mums grown by Angela Van Order, Michigan.

A new and successful crop of zinnias for Ashley Balance of Montana.

SOUTH AND CENTRAL

Arizona, Arkansas, Colorado, Louisiana,New Mexico, Oklahoma, Texas, and Utah

Shanti Rade
Whipstone Farm
info@whipstone.com

What's Old Is New

A crowd of folks swarm the stage at the ASCFG Nashville Grower Meeting, buzzing around the baskets and tables full of dried flowers, creating hand-tied bouquets of unique floral and textural ingredients, picking out their elements like bees visiting flowers, zipping from one choice to the next. After a riveting talk on dried floral trends and techniques by Emily Daniel of Basil & Bergamot, watching this scene unfold was truly a delight to behold.

Even though I was itching to get my hands on some of those dried beauties, I chose to stand back and watch the melee. It was quite enjoyable to take in the frenzy and also quite indicative—first of the amazing group of enthusiastic individuals who make up the ASCFG, second of the resurgence of the dried floral trend which we are smack dab in the middle of.

When I attended my first ASCFG conference, oh maybe 6 years ago, I remember talking to some long-time (and about ready to retire) ASCFG members and asking about their business and history. They said they started out growing all everlasting flowers in the 1980's, but that at some point a decade or so later, the market just tanked. One year dried florals could support their entire farm, and the next there was almost no market left and they were forced to switch gears. While no one wants a market so volatile that the rug can be pulled out from under them, we are also all aware of shifting trends and how we must adapt, along with changing climate and changing prices and all the other challenges in our industry.

That being said, the fact that dried flowers have made a serious comeback over the last few years is a great boon for flower growers. The new look of dried flowers is unique and exciting and the advantages are many. As growers we can utilize more of our harvest especially when crops are abundant and markets are slow. We can extend our sales into the winter months, when many of us without heated greenhouses have little to nothing to sell. Our customers, whether they be wholesalers, florists, or end users, have a non-perishable product, not the norm for the floral industry.

I have been growing flowers for over a decade. And honestly, other than drying a few bundles for myself here and there, I didn't purposely grow and dry anything in quantity until a couple of years ago. I thought the look was dated, and to be honest, ugly. But once I saw what others were doing with the dried flowers nowadays, I started to rethink the technique and get really inspired to try my hand at it. Luckily for us, in Arizona we have such a dry climate, it is practically perfect for drying just about anything.

To start things off easy the first year, we simply dried what we couldn't sell fresh, and used what we dried to make wreaths. The next year, we added some lovely mixed everlasting bouquets, very easy to make and so much faster than making wreaths.

We are currently selling straight bundles of dried flowers at the farmers' market and they are selling fast, which I could not have predicted even a year ago.

This year, we finally started to plant more quantity, variety, and specifically certain colors to use for dried material. We made harvesting for drieds a weekly prioritized task, so we wouldn't miss our window of opportunity, and I kept lists of materials any time I saw someone using something as a dried element that I hadn't thought of before (hello flowering oregano!). We organized our dried ingredients better than ever before in large plastic storage tubs with lids all labeled clearly to make the storage and future use way easier than in the past.

We are currently selling straight bundles of dried flowers at the farmers' market and they are selling fast, which I could not have predicted even a year ago. I am getting so many requests now for dried material from florists and other artisans and shops that I realize I need to devote a lot more energy, land, marketing, and possibly even infrastructure to dried flowers. Wreaths are still our best-selling dried product, but every area seems to be picking up momentum, even in our very behind-the-trend neck of the woods.

Moving forward, I'd like to be able to offer a comprehensive list of dried flowers to my wholesale customers, start pressing flowers for bakers and crafters, and try growing some new-to-me varieties for the sole purpose of drying. With the antiqued and natural look so popular, it actually creates even more options for foraging grasses, twigs, and pods, letting flowers sun-bleach in a greenhouse, or even utilizing over-mature flowers left out in the field for even more of a dead look.

While I like to think of myself as a bit of a rebel (one who likes to buck the trends), the fact is we are all influenced by them in some way or another, often without being conscious of the effect. But when we are in the business of sales, we can never think of ourselves as too good for trends. We can do our best to be unique and forge our own path, but we still have to give our customers what they want. Hopefully what we want and what they want can have some significant overlap.

I was listening to a TED talk recently on "How Sampling Transformed Music". It really hit me how in all of art and all of life really, we are building on what people have done before. With social media, that may be happening faster than ever before. While there may be nothing completely original in this world, we can take the elements of what someone has already invented or created and add something fresh and new—or in the case of this flower trend, something dry and dead. Humans have been drying and preserving flowers for 4,000 years and since that time the dried floral trend has come around again many times. I don't know why, but this made me feel better about following a trend—I guess because I used to turn my nose up at dried flowers and now I am singing their praises. I wanted some way to justify that. I see so much negativity going around about people copying other people. But I am not convinced that anyone has the corner on originality. I say use what you see around you and try to inject a bit of your own style and aesthetic. Or just fake it 'til you make it.

I am so excited that the dried flower trend is still picking up speed. I am seeing great ideas everywhere, from dried floral wedding bouquets and installations, to mixing dried and fresh florals for a unique look, to the ever-popular wreath workshop. It makes sense logistically and financially, at least for our business, to have more options for what to do with our flowers. It makes sense for us to extend our sales window and have winter work for our farm crew.

If you are interested in learning more, I definitely suggest you watch the video from the Nashville meeting in the Members Only section of the ASCFG web site. It's called "Making a profit from dried material" or "What to do with dead stuff".

I'd love to see what you all are doing with dried things, or hear insight into the trend or questions you may have. Please post on the ASCFG Facebook group or tag a photo on Instagram with #whattodowithdeadstuf

Erin McMullen and Leila Chun, Puaono Farm, Kamuela, Hawaii

Liz Gallagher, Lizzy Bee Farm, Waikoloa, Hawaii and Aaron Gaskey

WEST AND NORTHWEST

Alaska, California, Hawaii, Idaho, Nevada, Oregon, and Washington

Erin McMullen
Rain Drop Farm
raindropfarm@peak.org

Last fall was all about re-connecting, re-assessing and re-evaluating for me, and our business. After a super busy season of farming, and raising three kids, I'd been feeling a bit overwhelmed and certainly overworked, a theme that I hear from many of my fellow farmers as our seasons wind down and the winter months loom ahead.

So, what do flower farmers even do in the winter? It's a question that we're asked often, usually followed by a knowing smile and a comment like "Just sit around and relax, read, catch up on the news?" And I'll smile back and say, "We just keep working—there's always something to do."

Last year, we made a solid effort to get our season wrapped up as efficiently as possible, and to work on resetting for 2020 with renewed enthusiasm. Mother Nature helped in this by granting us with an extra early (for us) frost on October 9th, effectively ending our season, save the few crops in our hoops and on our home property, which didn't see frost until two weeks later. If I'm being honest, it was a welcome relief, both physically and mentally.

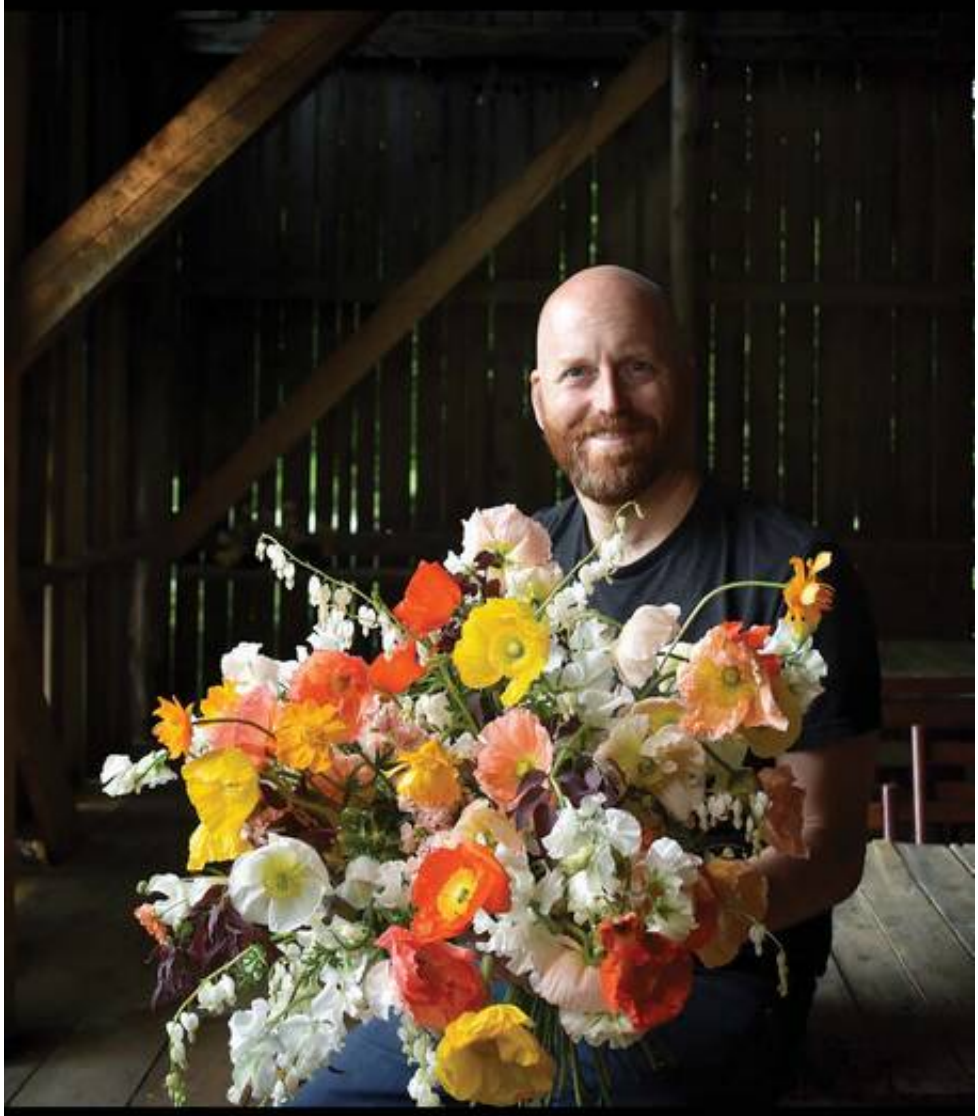
For us, the fall cleanup is mostly getting dahlias up and then putting the perennials to bed. We cover crop most of our annual fields and start to look forward to winter projects that will get done only in the off season.

After Nashville, we had our annual fall PNW Cut Flower Growers meet-up. This year Field to Heart, in Curtis, Washington hosted a group of growers. D and Val showed us around their new farm site, which is quickly becoming an amazing place. The day was made perfect by amazing Tom & Jerrys made by Val, great discussion about the ups and downs of our seasons, and an amazing spread of potluck dishes by the growers. Farmers really do know how to eat!

Our November was rounded out with a trip to the Big Island of Hawaii, for some much-needed rest and relaxation. However, as we've discovered over the years, one of our favorite things to do on vacation is to visit other farms, and we were able to visit multiple farms on the island, spearheaded by Liz of Lizzy Bee Sustainable Flower Farm. She set up a lovely time on a farm just up the road from her, Puaono Farms.

Leila was gracious enough to host us and three other farms at her place, where she gave us a tour of her new greenhouses, establishing perennial beds and off grid farm. It was truly fascinating to learn of the challenges that our tropical growers have, many that were just not on my radar at all (wild pigs anyone?), but many that we deal with as well: labor, water, insects, diseases, and pricing. Over a lovely snack and drinks we discussed the direction of flower growing on the island, and were surprised to learn that many of the flowers we so commonly think of and grow are all but new to the designers and florists there, and the demand is growing for some of our favorites, like dahlias, lisianthus, and eucalyptus, paving a path for growers to make a real impact in the trade on the island.

PLUGS AND PERENNIALS FOR FLOWER FARMERS



www.farmerbailey.com
www.farmerbaileyperennials.com

Are you using your membership benefits?

The best bulbs
and perennials
for your business

ourAmericanRoots.com

Van der Salm Farms, Inc.

35306 NW Toenjes Rd
Woodland WA 98674
Phone: 360-263-2180
Fax: 360-263-3180

Like ***OurAmericanRoots.com*** *for news and up-to-date special offers!*

facebook

Heidi, Always Anthuriums

As a bonus, we were connected with Heidi of Always Anthuriums, and were invited to tour with them during this beginning of their busy season. Heidi's father has been growing anthuriums for decades, first under traditional shade structures, and then under native forest cover. I can't even begin to describe what an amazing experience it was to walk under towering Ohi'a trees and tree ferns, seeing bed after bed of anthurium growing up and blooming, some over my head. It was a walk in a dream. The farm is amazing, the people are the kindest and most lovely, and the whole experience just concreted in my mind how farming has the power to bring us all together. We left with full hearts, and a beautiful bouquet of anthurium.

The takeaway? We're all going through the same stuff. The rough patches, where the insects are out of control, the pigs are marauding, and the paperwork has you wanting to escape to a desert island; and the good patches, when we celebrate the beauty and success of what we do, daily. So, how do you connect with each other? How are you sharing the joy, and the struggles? I would like to encourage us all to build this amazing community, one connection at a time. Have you? Let me know! raindropfarms@peak.org

CANADA

Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan

Janis Harris
Harris Flower Farm
janisandmarkharris@hotmail.com

Hindsight is 20/20. "It's easy to know the right thing to do after something has happened, but it's hard to predict the future". As we enter the new year of 2020 and especially a new decade, it's a good idea to look back, learn from lessons, and plan for the future.

The 20/20 reference is a merge of my two professional lives. I was a trained optician for 15 years, and left 2 years ago to be a flower farmer. I went to college and became an optician right out of high school. I was a young professional. This was a big learning experience for me. I had to prove that I knew my stuff and that I deserved the respect of my customers and peers.

I quickly climbed the ladder and was hired as the Area Supervisor for an optical chain. I managed 6 stores and over 30 staff. I was still young, under 30, but I was confident in my abilities. This job was full of long hours, conflict resolution, empowering my staff to excel and reaching goals set out for me. Looking back, this position helped prepare me for flower farming. I learned how to work hard. It wasn't a cushy manager job. At times I was a supply delivery person in a pair of pumps and a skirt. This job also taught me about customer service. I was the front line of dealing with customer complaints that escalated enough to go to the head office. I had to help the customer as best I could to resolve the situation but also teach the staff member to be empowered and able to resolve the problem before it escalated.

In flower farming, we work really hard. We do everything we can to make our customers happy. If we have helpers or staff we want to empower them to work independently for the greater good of our business. Although I learned so much about business and people from being in a managerial position, I don't want to be back working for a company, in a position like that, for a second. I want to be in charge of my life and business.

Lessons from 2019

Collaborate with like-minded people.

I am so lucky to have become great business friends with a new venue in my area. I did the flowers for their first wedding 4 years ago. It was a small event. But in the past 4 years we have done many events at her barn venue. We know and respect how each other works. She trusts that I am able to set up an event without her being around. Often our only interaction is a wave in passing as we are both doing our part to make the day great. In January of 2019 we worked together to set up a booth at a local large wedding show. I had always wanted to attend, but the $800+ price tag scared me. We split the costs and were amazed with the results. She booked the rest of her open dates and I was overwhelmed with the response for our bookings. Going forward she trusts me enough that she tells all of her couples that book her venue "Unless you have a family member who does flowers, book Janis."

Find your business besties.

This year I was introduced to a group of ultra-local business women who meet to help one another with challenges they face in their business. It is a small collective of women who are full time and the main owner in their business and serve the local community. We meet monthly and every meeting is so helpful. We have a Vegas-style rule that "What happens in the group stays in the group". We have exercises in our agenda to force us to be brutally honest and vulnerable. Nothing illegal! Just raw and truthful about our experiences, and seeking advice or inspiration of how we can overcome the challenges others are probably facing as well. We are very much community focused and not concerned about competition; we have two hairdressers and two restaurateurs, but that doesn't matter, we know that any one of us cannot possibly take ALL the business. There have been many tearful moments as well as celebrating each other's successes. Find the people you can bounce ideas off or look to for a compassionate heart. Look for business groups in your area, find the right fit. It may be the chamber of commerce or a business lunch group. Find the people that you enjoy being with and trust. You may have to go to a few different events but when you find your group you will make the time to go.

Don't underestimate what you can achieve.

The week before Canadian Thanksgiving we were still flooded with flowers. We were working our butts off and also super tired from the constantly busy schedule. There was no sign of frost in sight even though we were at the beginning of October. One of my summer wholesale accounts contacted me and said "We normally get flowers from the wholesaler this time of year, but wondered if you think you can fill our Thanksgiving needs? We usually get 100 bunches of flowers for the weekend." Luckily the message was on voicemail so I had a couple minutes to let it roll around in my head. I quickly decided, "We Can Do That!"

I arranged a bouquet in my head of one stem of broom corn, one sunflower, two stems of ageratum, two zinnias, three ball dahlias, and one stem of basil. Yep, we could do it! I called her back and said "Yes! We will bring 20 bouquets per day Thursday to Monday." The store is about 6 minutes away. This was the most organized order I had ever done because I had to be organized and quick. We pounded those bouquets out so beautifully. It was a sight to watch. The final number delivered was 120—they called for a double delivery on Saturday. It was the greatest high to end the season. Frost hit on Thanksgiving Monday. That is the high that I am moving forward with in 2020.

Look at the past to learn lessons, mull over the present to gain experience and confidence, and dream and plan for the future. "If you fail to plan, you plan to fail".

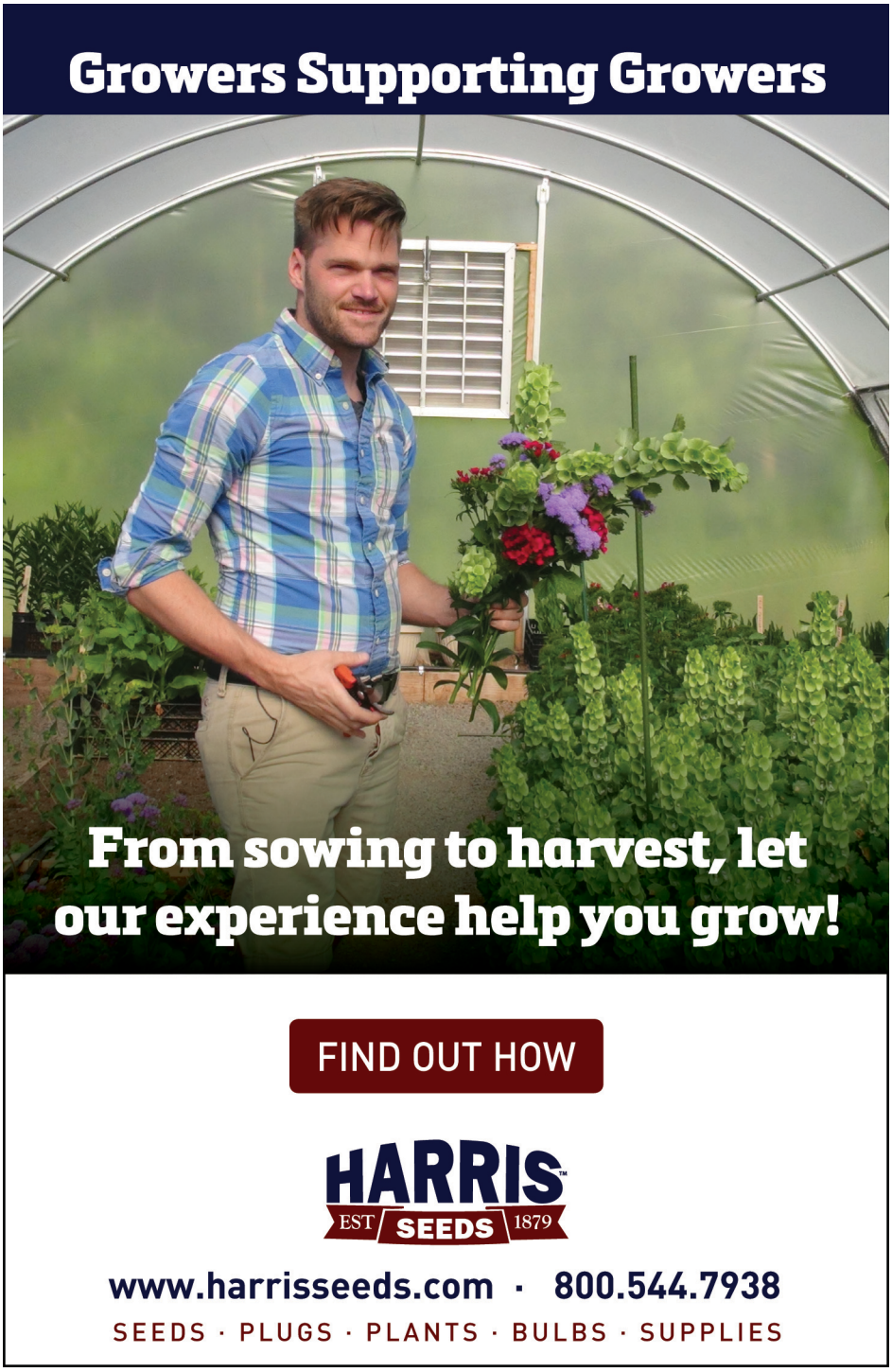
I'm very excited about the future of the ASCFG. The Executive and Board members had a very successful and focused meeting in Nashville and we have really set in stone the plan for the future. It is exciting to see the path for success that we can follow. I'm so grateful to be returning for a second term as the Canadian Regional Director. I am honoured that the Canadian members have chosen me to represent them. I am dedicated to this organization and its members. Hindsight is 20/20 because I had no idea when I received an ASCFG membership as a birthday gift in 2012 how important it would become to me.

Learn from your past, gain confidence from your experiences and plan your path to success.

Meet the ASCFG's Newest Members

Amber Abele, Forever Amber Flower Farm, Groton, NY
Heidi Anliker, Shady Bluff Flowers, Sabetha, KS
Nancy Bachman, Bachman's Blossoms, Lebanon, PA
Erika Bahler, Meadow Brook Farm, Ellington, CT
Dana Bankston, Rolling Hills Flower Farm, Houston, TX
Susan Bass, Sonoita, AZ
Paul Bela, Hill and Hollow Farm, Edmonton, KY
Elizabeth Bjorklund, Tip Top Farm, Soldiers Grove, WI
Lauren Brandy, Pixie Dust Flower Farm, Davis, CA
Shannon Brickler, Dry Ridge, KY
Wendy Brubaker, Morningside Meadows Flower Farm, New Carlisle, OH
Ashley Buehrer, Bevy Flower, Homer, MI
Julia Bull, Hickory Grove Gardens, Phoenixville, PA
Lori Cabe, The Flower Company Farmer and Florist, Otto, NC
Shannon Calton, Flowers On The Creek, Fletcher, NC
Michael Card, Card Farm, Madbury, NH
Jessica Caver, Buckets of Blooms, Tomball, TX
Leila Chun, Puaono Farm, Kamuela, HI
Emily Cliver, Raleigh, NC
Meredith Coln, Backyard Blooms, Greenville, SC
Shaun and Lorrie Conway, Conway Family Farm, Camas, WA
Jenna Cook, Clovergold Flower Farm, Newell, IA
Patricia Corona, Garden by the Woods, Martinsburg, WV
Taij and Victoria Cotton, Perry-winkle Farm, Pittsboro, NC
Margaret Cox, Flowers on the Hill, Wyoming, NY
Carla Crim, Delaware County Cooperative Extension, Hamden, NY
Meghan DeGroot, Simple Gifts Flower Farm, Belleville, IL
Melinda Deida, Nova Flower Company, Nashville, TN
Amanda Devitt, Mastic Beach, NY
Kayla Dineen, Well Rooted Farm, Winston-Salem, NC
Annabel Drover, Twig & Brindille Flower Farm, Durham, ON
Melinda Edwards, Edwards Farmstead, Solsberry, IN
Felicia Ek, Bloom Floral, Woodland, WA
Lisa Feng, Peaceful Peasants Flower Farm, Athens, GA
Michaela Foreman, Urban Dirt Farm, Princeton, WI
Patricia Fraser, Red Barn Flower Farm, Boyds, MD
Robyn Gable, SLO Creek Farms, San Luis Obispo, CA
Shelby Gamache, Columbia River Dahlias, Kennewick, WA
Denise George, Fresh Farms Market, Grosse Pointe, MI
Marci Glenn, Marci Lynn Flowers, Cornelius, OR
Katherine Granger, Seeds of IMBOLC, Fergus, ON
Antoine Groot, Takii Europe, De Kwakel, The Netherlands
Kristy Guillory, Zachary, LA
Merry and Shane Hanson, Hansfield Farm, Columbus, NE
Jamie Hendrix, Hendrix Farm, Centerview, MO
Rebecca Herfst, Petals & Stems Flower Farm, Chilliwack, BC
David Hertzog, Renfrew, PA
Jill Holcomb, Temple Creek Flowers, Cambridge Springs, PA
Dianne and Randy Horn, LouRu's Flower Patch, Olive Branch, MS
Clarisa Horton, Fort Leavenworth, KS
Brook Hurst Stephens, Faraway Flower Farm, Longbranch, WA
Reneé Hutchison, Southern Blooms Flower Farm, Morrison, TN
Irma Jansen, Takii Europe, De Kwakel, The Netherlands
Violet Jones, Old School Gardens, Girard, IL
Tasha Kelley, A Secret Garden 411, Zachary, LA
Jenn Kern, Eastview Gardens, Clarks Summit, PA
Dana Kern, Sunshine Flower Farm, Camp Hill, PA
Lexi Koch, Flourish, Port Townsend, WA
Carrie Koester, Barnside Flower Farm, Red Bud, IL
Stephan Z. Krygier, Zygmunt Ventures, Burlington, NJ
Patrick Lucas, Bristow, VA
Pam Mack, L Marie Ltd., Greenwich, OH
Sarah McCarthy, Crooked Fence Farm, Upperco, MD
Molly McCleary, Asarum, Neosho, MO
Tessa McCusker, Early Owl Farm, Eugene, OR
Martha Middleton, Tiny Blooms, Tiny, ON
Natalie Morgan, Treehouse Flower Farm, Naselle, WA
Meighan Muncy, Grow Me Happy, Lexington, KY
Rachel Nafis, Psalter Farm Flowers, San Diego, CA
Amy Smith and Nathan Smith, Smith Flower Farm, Blair, NE
Kathryn Natzke, Cheer-Up Farms, Pittsford, MI
Martie Negri, Martie Negri, Mamaroneck, NY
Linda Nichols, Leaning Barn Farms, Parma, ID
Melinda Nordell, B. Blossoms, Brentwood, NH
Mary Norris, Flower Child Farm, Greensboro, NC
Ashley O'Colmain, Olinda Farms, Makawao, HI
Mary O'Connor, BloomStudios, Elburn, IL
Molly O'Donnell, Marstons Mills, MA
Jessica Ojala, Ojala Farm, Wolcott, VT
Sydney Oklesson, Destiny Hill Farm, Claysville, PA
Richard Ottley, Petal Orchard, Saratoga Springs, UT
Tiffinne Perkins, South Euclid, OH
Kasey Peters, Roca, NE
John Peterson, Pollinate Flowers, Dundee, OR
Chris Petrick, Up North Fields, Beulah, MI
Colleen Raney, Diadem Flower Co., Springvale, ME
Susan Reed-Fanfoni, TruLe Blooms, Ithaca, NY
Krista Reising, Bonita Vista Farm, Springerville, AZ
Elisa Rios, Healing Flowers Farm, Meadow Vista, CA
Kristen Rubin, Sweetwater Stem Co., Gig Harbor, WA
Scott Rusch, BloomStudios, West Chicago, IL
Ronette Ryan, Just Bloom Flower Farm, Osceola, IN
Jessica Savarese, Fleurette Farm, Ellettsville, IN
Mary, Eric, and Sarah Schactler, Eatonville Nursery, Eatonville, WA
Natania Schaumburg, Ruth Bennett Community Farm, Philadelphia, PA
Marcella Schiff, Enumclaw, WA
Emily Schlobohm, Circle S Farm, Cypress, TX
Caroline Selle, Winding Root Farm, Rohrersville, MD
Leilanie Shedden, Hanging Rock Farm, Barkers Vale, NSW, Australia
Josh Sickinger, Harvest Tyme Farm Park, Lowell, IN

Jennifer Smith, FarmGirl Flowers, Maryland, New Windsor, MD
Chris A. Smith, Chris' Backyard Blooms, Liberty Twp., OH
Thomas and Mary Stachlewitz, Lavender and Grace Family Farm,
Manchester, MI
Laticia Steiner, Flourish Fields, Millersburg, OH
Brenda Stella, Stella Farms, Richmond Township, MI
Shelly Stock, Stocks & Stems, Seattle, WA
Anna Strickler, Mercersburg, PA
Lana Szczepanski, Nectar Farm, Zebulon, NC
Rebecca J. Teer, Chapel Hill, NC
Amanda Theys, Serendipity Flowers, Charlotte, NC
Monika Thompson, Scratch House Farms, Waskom, TX
Paige T. Thompson, Opal's Flowers, John's Island, SC
Robin Trimble, Winchester, KY
Jacqueline Turk, Jacqueline's Fresh Cut Flowers, Verona, VA
Phoebe Van Vleet, Thistle Flower Farm, Lodi, NY
Geraldine VanRaalte, Westfield Flowers, Waterdown, ON
Fiona Vietje, Richmond, VT
Rick Walker, Tranquil Acres Farm, Cherryville, NC
Tara Watkins, Radnor, OH
Sandra White, Over-the-Hill Farm, Bath, ME
Linsey Wig, Foxchester Flowers, Montour Falls, NY
Patricia Witte, Patricia Witte, Hobson, TX
Mary-Pat Wolfington Larralde, Wynnie's Flower Farm,
Clovis, CA
Deb Woller, Olfashnd Flowers, Merrill, WI


Growers Supporting Growers
From sowing to harvest, let our experience help you grow!
FIND OUT HOW
HARRIS
EST SEEDS 1879
www.harrisseeds.com · 800.544.7938
SEEDS · PLUGS · PLANTS · BULBS · SUPPLIES

ASSOCIATION OF Specialty Cut Flower Growers RESEARCH FOUNDATION
Research • Growth • Results

DONATE ONLINE OR WITH YOUR RENEWAL PAYMENT TO CONTINUE IMPORTANT CUT FOWER RESEARCH.

The ASCFG Research Foundation was formed in 2004 as a 501(c)(3) organization. This non-profit and tax-exempt status allows the Research Foundation to apply for grants and to raise money for larger research projects that would be conducted by universities. The Research Foundation is currently funded solely by ASCFG member donations and the Research Auction held most years at the ASCFG National Conference. The ASCFG Research Foundation supports a competitive grant program open to universities, governmental agencies, and other tax-exempt 501 (c) (3) organizations.

Ask an Expert!

LIVE

Our interactive Facebook live events have become popular and useful exchanges of information. Take advantage of these opportunities to ask questions of cut flower experts in real time on the second Monday of each month, 8:00 p.m. eastern time.

January 13	TBA
February 10	Bailey Hale—sweet pea production
March 9	Christine Hoffman—farmer cooperatives
April 13	Lennie Larkin—evaluating new opportunities
May 11	Jennie Love—dahlia production
June 15	Stanton Gill—insect pests
July 13	Carolyn Snell—lisianthus
August 10	Janis Harris—sunflowers
September 14	Erin McMullen and Shanti Rade—bouquets
October 12	Julio Freitas—foam-free design
November 16	Mimo Davis and Barb Lamborne—flower farming study groups
December 14	TBA

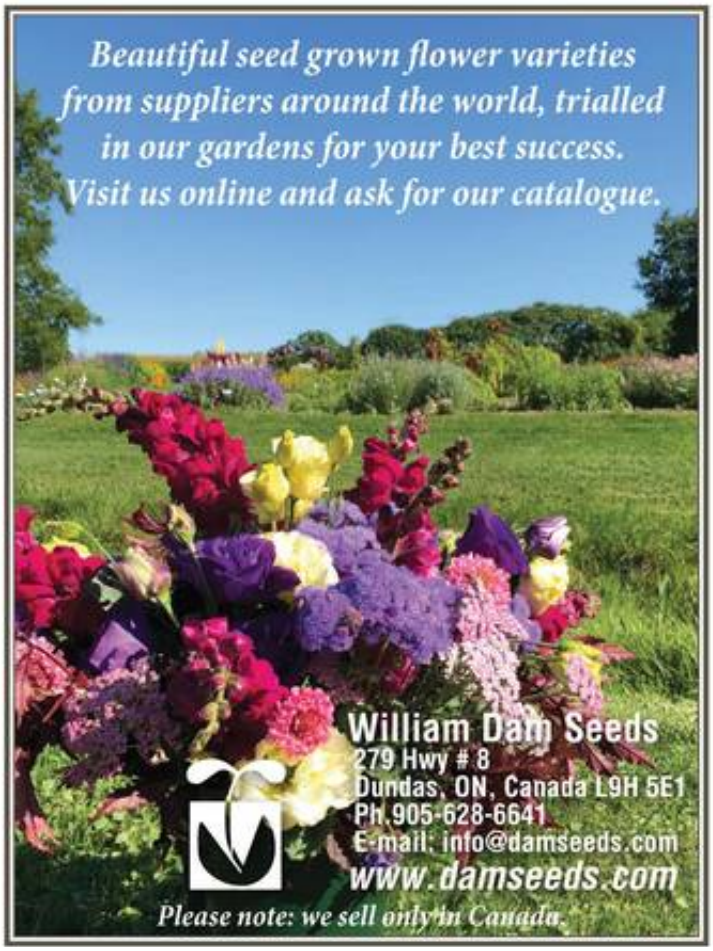
Update Your Member Page

Log in!

- Go to the "Members" tab and click "edit" under your company name.
- Download instruction manual on this page.
- Your contact information has already been entered. Make any necessary changes.
- Replace default images with your logo and and your favorite photos that tell your story.
- Enter a business description that clearly defines you and your company.
- Share links to your website and social media.
- Include links for a price list, catalog, online store, or product availability.
- Let buyers know if you supply locally, regionally, or nationally.
- Highlight services offered.
- Mark check boxes for flowers that you grow.
- Add locations where your flowers may be purchased.
- Be sure to click the "Update" button to save.

ORDER ASCFG LOGO WEAR

at www.ascfg.org/membership/logoapparelorder

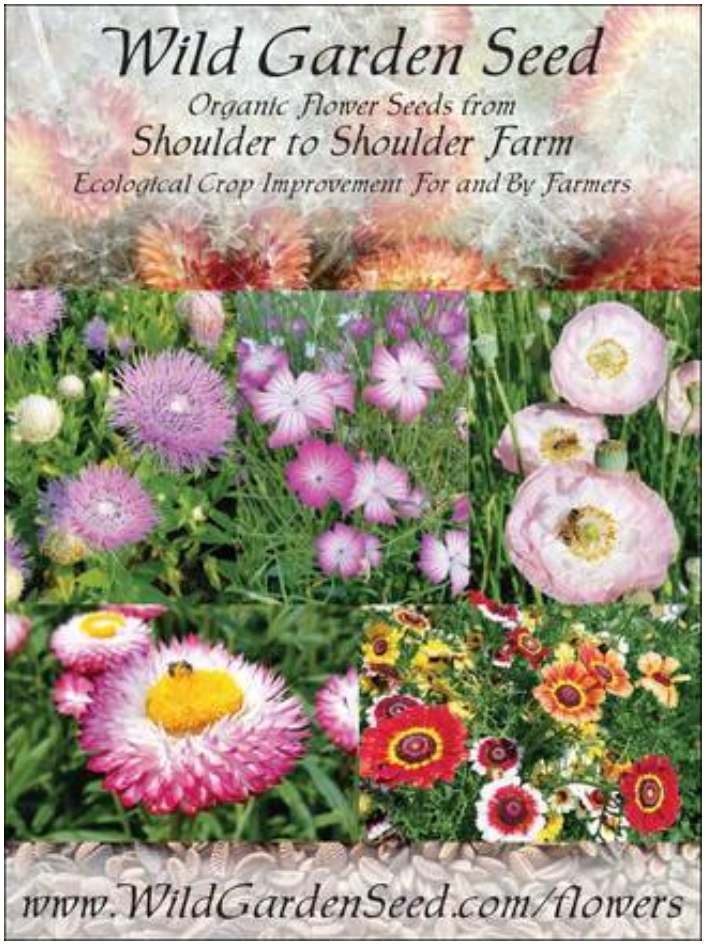

Beautiful seed grown flower varieties
from suppliers around the world, trialled
in our gardens for your best success.
Visit us online and ask for our catalogue.
William Dam Seeds
279 Hwy # 8
Dundas, ON, Canada L9H 5E1
Ph.905-628-6641
E-mail: info@damseeds.com
www.damseeds.com
Please note: we sell only in Canada.

Slow Flowers SUMMIT
INQUIRE INFORM INCLUDE INSTIGATE INSPIRE
SLOWFLOWERSSUMMIT.COM

Celebrating American Flowers Week
JUNE 28 - 30 | SAN FRANCISCO
FILOLI HISTORIC HOUSE AND GARDEN | WOODSIDE, CA

Keynote Presentation by
SUSAN MCLEARY
@passionflowersue
The Creative Journey:
Finding Your Artistic Voice,
Truth + Expression

Your $599 Registration includes 2-1/2 days
Floral Takeover at Filoli Historic House led by Susan Mcleary
Behind-the-Scenes Tour of Farmgirl Flowers
hosted by Christina Stembel
SPECIAL $549 RATE for SLOW FLOWERS MEMBERS
Registration, Details and more at
www.SlowFlowersSummit.com
A PRODUCTION OF DEBRA PRINZING AND SLOW FLOWERS LLC



Life and Business Coaching

Do you want to make more money and work less?

I can help.

As a farmer, life coach, and business consultant, I support farmers to find solutions and more fully implement them!

Let's talk!

organicfarmercoach.com

Make New Connections in 2020

Judy M. Laushman

Another year—another decade—begins, this one with a near-record number of new ASCFG members. Thanks to recommendations made by people like Liza Ziegler, Erin Benzakein, Steve and Gretel Adams, and Dave Dowling, and the efforts of the ASCFG Board of Directors, the organization gained almost 70 members in December of 2019.

We welcome these growers, some of whom already have farming experience in other crops but are adding cut flowers to their lineups, some who are entering the field (so to speak) with little or no practical knowledge of agriculture, with many somewhere in the middle of the spectrum.

They're encouraged to take full advantage of the ASCFG's online resources—back issues of *The Cut Flower Quarterly* and videos of conference and meeting speaker sessions are two of the most-used services in the members-only section of the web site.

One of the most valuable, but perhaps sometimes overlooked, sections of the public page is the list of industry suppliers, which can be found under the Resources tab. These are the companies which support the ASCFG with advertising, trade show exhibits, and, increasingly, participating in the ASCFG Trial Program. The 2020 Seed Trial will include two new companies, East-West Seed, and Evanthia Seed, both for the first time, as well as long-time partners like American Takii, AmeriSeed, Ball/PanAmerican (recently rebranded as BloomStudio), Fred C. Gloeckner & Co., and Sakata.

Understanding the value of the only cut flower trial program in North America, companies like these are now reaching out to *us*, wanting to learn how their crops perform for *our* growers, asking ASCFG members what cultivars *they* want to add to their production lines. It's important that we continue to connect suppliers like these to our cut flower growers.

Take advantage of these relationships: contact the ASCFG member listed for these companies, and let them know what you're looking for. If you have questions about specific sowing or growing-on issues, or wonder what the right temperature is for that new snapdragon cultivar, go right to the source. Invite a company rep to your farm, have a few of them tour your greenhouses. Social media can open useful avenues for communication, but nothing is better than building person-to-person relationships, which are vital for successful businesses.

Kick off the Conference week with these sessions at the Growers' School!

Monday, November 9

THE ASCFG GROWERS' SCHOOL IS WELL-KNOWN FOR PROVIDING IN-DEPTH PRODUCTION AND MARKETING INFORMATION TO NEW GROWERS, OR THOSE ADDING CUT FLOWERS TO THEIR FARMS. BUT NO MATTER HOW LONG YOU'VE BEEN IN BUSINESS, YOU'RE LIKELY TO LEARN FROM THESE EXPERTS!

BAILEY HALE, ARDELIA FARM & CO. — STREAMLINE YOUR CROP SELECTION

JULIO FREITAS, THE FLOWER HAT — EFFECTIVE MARKETING

LAURA BETH RESNICK, BUTTERBEE FARM — QUALITY STANDARDS

JENNIE LOVE, LOVE 'N FRESH FLOWERS — FARM LAYOUT

SHANTI RADE, WHIPSTONE FARM — SEED STARTING

JOHN DOLE, NORTH CAROLINA STATE UNIVERSITY — POSTHARVEST HANDLING

JANIS HARRIS, HARRIS FLOWER FARM — MIXED BOUQUETS

ASCFG Conference and Trade Show

NOVEMBER 9–11, 2020

THE REUNION RESORT ORLANDO, FLORIDA

Don't miss this experience to connect with growers from across the country!

PROGRAM AND REGISTRATION INFORMATION COMING SOON AT WWW.ASCFG.ORG

ASCFG IN 2020

Ednie Flower Bulbs
A division of Fred C. Gloeckner & Co, Inc.

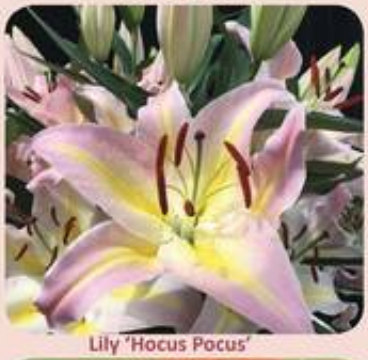
Distributors of seed, bulbs, plants, plugs, and greenhouse supplies for all of your cut flower needs

Gloeckner

Now is the time to order these items for the upcoming season!

Lily 'Empress'

Cosmos 'Xsenia'


Lily 'Hocus Pocus'

Dahlia 'Cafe au lait'

Calla 'Beatrix'

Sunflower 'Pro Cut Horizon'

Calla 'Captain Promise'

Lepidium 'Green Dragon'

For Bulbs & Perennials . Call 800.243.3643 . support@ednieflowerbulb.com
For Seeds, Young Plants & Grower Supplies . Call 800.345.3787 . Info@fredgloeckner.com
For a copy of our New Seed Catalog or New Lily Catalog contact our office.

www.fredgloeckner.com www.ednieflowerbulb.com